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OM protein - protein search, using sw model

Run on: March 31, 2005, 02:35:38 ; Search time 124.5 Seconds
(without alignments)

68.343 Million cell updates/sec

Title: US-10-816-720-1

Perfect score: 127

Sequence: 1 KAGIQEQCHQPRGRRWNCITVS 22

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A Genesep_16Dec04:*

- 1: geneseqp1980s:*
- 2: geneseqp1990s:*
- 3: geneseqp2000s:*
- 4: geneseqp2001s:*
- 5: geneseqp2002s:*
- 6: geneseqp2003as:*
- 7: geneseqp2003bs:*
- 8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	127	100.0	352	3 AAY57596	Aay57596 Murine Wnt
2	118	92.9	42	4 AAM17532	Aam17532 Peptide #
3	118	92.9	42	4 ABB36555	Abb36555 Peptide #
4	118	92.9	42	4 AAM30054	Aam30054 Peptide #
5	118	92.9	42	4 ABB31349	Abb31349 Peptide #
6	118	92.9	42	4 ABB21891	Abb21891 Protein #
7	118	92.9	42	4 AAM69719	Aam69719 Human bon
8	118	92.9	42	4 AAM57320	Aam57320 Human bra
9	118	92.9	42	4 ABG51403	Abg51403 Human liv
10	118	92.9	42	4 AAM05204	Aam05204 Peptide #
11	118	92.9	42	5 ABG39339	Abg39339 Human pep
12	118	92.9	313	5 ABG60223	Abg60223 Human Wnt
13	118	92.9	313	7 ADM80169	Adm80169 Human NOV
14	118	92.9	352	5 AAU96846	Aau96846 Human Wnt
15	118	92.9	352	5 ABG60221	Abg60221 Human Wnt
16	118	92.9	352	5 ABG60222	Abg60222 Human Wnt
17	118	92.9	352	5 AAU96847	Aau96847 Human NOV
18	118	92.9	352	7 ADJ70241	Adj70241 Human hea
19	118	92.9	352	7 ADM80165	Adm80165 Human NOV
20	118	92.9	352	7 ADM80167	Adm80167 Human NOV
21	118	92.9	352	8 ADO08164	Ado08164 Human Wnt
22	118	92.9	352	8 ADO22222	Ado22222 Human Wnt
23	118	92.9	519	4 ABG23383	Abg23383 Novel hum
24	117	92.1	333	6 ABU55885	Abu55885 Human WNT
25	117	92.1	333	6 AAE34074	Aae34074 WNT3 prot

ALIGNMENTS

RESULT 1

AAY57596
ID AAY57596 standard; protein; 352 AA.

XX AC AAY57596;

DT 02-MAR-2000 (first entry)

DE Murine Wnt-3a protein.

XX Wnt-1; neuronal growth; differentiation; regeneration;
KW dorsal neural progenitor cell; neurodegenerative disease;
KW Parkinson's disease; amyotrophic lateral sclerosis;
KW diffuse Lewy body disease; cortical-basal ganglionic degeneration;
KW Hallervorden-Spatz disease; myoclonic epilepsy.

OS Mus sp.

XX WO9957248-A1.

XX 11-NOV-1999.

XX 30-APR-1998; 98WO-US008716.

XX 30-APR-1998; 98WO-US008716.

XX (HARD) HARVARD COLLEGE.

XX McMahon AP, Lee SK, Takada S;

XX N-PSDB; AAZ47790.

XX WPI; 2000-062145/05.
XX Enriched populations of mammalian neural precursor cells, for treating Parkinson's disease.

XX Claim 12; Page 5; 57pp; English.

XX The present invention describes an enriched population of mammalian neural precursor cells committed to a cell fate, the cells being characterized in that they exhibit a stem cell phenotype in the presence of a Wnt polypeptide but not in the absence of the Wnt polypeptide. The enriched population of dopaminergic neuron precursor cells can be used in a method for treating Parkinson's disease. The enriched population of dorsal neural precursor cells can be used to induce neuronal regeneration in an adult mammal suffering from a neurodegenerative disorder. The disorder that can be treated is Parkinson's disease, Amyotrophic lateral sclerosis, diffuse Lewy body disease, cortical-basal ganglionic

Aaw30618 Human Wnt
Adj69770 Human hea
Ado08163 Human Wnt
Ado22220 Human WNT
Ado49099 Human ded
Aay57271 Wnt-4AF a
Abg61843 Prostate
Adn39266 Cancer/an
Ado08167 Human Wnt
Ado22228 Human WNT
Abm81330 Tumour-as
Abm81329 Tumour-as
Abg79687 Tumour in
Adj34289 Human sec
Ado57295 Kidney de
Aay57600 Human Wnt
Aay70739 Human Wnt
Aab73619 Wnt-5a tu
Aau85414 Human pro
Abp58342 Human cel

26 117 92.1 355 2 AAW30618
27 117 92.1 355 7 Adj69770
28 117 92.1 355 8 Ado08163
29 117 92.1 355 8 Ado22220
30 117 92.1 355 8 Ado49099
31 99 78.0 359 3 AAY57271
32 99 78.0 359 5 ABG61843
33 99 78.0 359 7 ADN39266
34 99 78.0 359 8 ADO08167
35 99 78.0 359 8 ADO22228
36 99 78.0 359 8 ABM81330
37 99 78.0 359 8 ABM81329
38 97 76.4 260 5 ABG79687
39 97 76.4 338 8 ADJ34289
40 97 76.4 363 8 ADO57295
41 97 76.4 365 3 AAY57600
42 97 76.4 365 3 AAY70739
43 97 76.4 365 4 AAB73619
44 97 76.4 365 5 AAU85414
45 97 76.4 365 6 ABP58342

Qy 1 KAGIQECQHQFRGRRWNCTTV 21

KW genetic disorder.
XX OS Homo sapiens.
XX PN WO200157272-A2.
XX PD 09-AUG-2001.
XX PF 30-JAN-2001; 2001WO-US000663.
XX PR 04-FEB-2000; 2000US-0180312P.
XX PR 26-MAY-2000; 2000US-0207456P.
XX PR 30-JUN-2000; 2000US-00608408.
XX PR 03-AUG-2000; 2000US-00632366.
XX PR 21-SEP-2000; 2000US-0234687P.
XX PR 27-SEP-2000; 2000US-0236359P.
XX PR 04-OCT-2000; 2000GB-00024263.
XX PA (MOLE-) MOLECULAR DYNAMICS INC.
XX PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2001-488897/53.
XX DR Human genome-derived single exon nucleic acid probes useful for analyzing
XX PT gene expression in human placenta.
XX PS Claim 27; SEQ ID NO 30323; 654pp; English.
XX CC The present invention relates to single exon nucleic acid probes (SENP;
XX CC see AA131315-AA157546). The present sequence is a peptide encoded by one
XX CC such probe. The probes are useful for producing a microarray for
XX CC predicting, measuring and displaying gene expression in samples derived
XX CC from human placenta. The probes are useful for antenatal diagnosis of
XX CC human genetic disorders
XX SQ Sequence 42 AA;
Query Match 92.9%; Score 118; DB 4; Length 42;
Best Local Similarity 95.2%; Pred. No. 3e-10;
Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 1 KAGIQECQHQRGRWNCTTV 21
Db 9 KIGIQECQHQRGRWNCTTV 29
RESULT 5
ABB31349
ID ABB31349 standard; peptide; 42 AA.
XX AC ABB31349;
XX DT 01-FEB-2002 (first entry)
XX DE Peptide #4000 encoded by breast cell single exon nucleic acid probe.
XX KW Human; microarray; single exon probe; gene expression, breast; disease;
XX KW cancer.
XX OS Homo sapiens.
XX PN WO200157271-A2.
XX PD 09-AUG-2001.
XX PF 30-JAN-2001; 2001WO-US000662.
XX PR 04-FEB-2000; 2000US-0180312P.
XX PR 26-MAY-2000; 2000US-0207456P.
XX PR 30-JUN-2000; 2000US-00608408.
XX PR 03-AUG-2000; 2000US-00632366.
XX PR 21-SEP-2000; 2000US-0234687P.

PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX PA (MOLE-) MOLECULAR DYNAMICS INC.
XX PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2001-496933/54.
XX DR New spatially-addressable set of single exon nucleic acid probes, useful
XX PT for measuring gene expression in sample derived from human breast,
XX PT comprises number of single exon nucleic acid probes.
XX PS Claim 27; SEQ ID NO 14317; 327pp + Sequence Listing; English.
XX CC The invention relates to a spatially-addressable set of single exon
XX CC nucleic acid probes for measuring gene expression in a sample derived
XX CC from human breast and B7 474 cells. The method involves contacting the
XX CC probes with a collection of detectably labelled nucleic acids derived
XX CC from mRNA of human breast, and then measuring the label bound to each
XX CC probe of the microarray. The probes are useful for verifying the
XX CC expression of regions of genomic DNA predicted to encode proteins. They
XX CC are useful for gene discovery, and for determining predisposition and/or
XX CC prognosing breast disease. Gene expression analysis is useful for
XX CC assessing the toxicity of chemical agents on cells. The microarray of
XX CC this invention presents a far greater diversity of probes for measuring
XX CC gene expression, with far less bias than expressed sequence tag
XX CC microarrays. The method is suitable for rapid production of functional
XX CC information from genomic sequence. The present sequence is a peptide
XX CC encoded by a single exon nucleic acid probe of the invention. Note: The
XX CC sequence data for this patent did not form part of the printed
XX CC specification, but was obtained in electronic format directly from WIPO
XX CC at ftp.wipo.int/pub/published_pct_sequences
XX SQ Sequence 42 AA;
Query Match 92.9%; Score 118; DB 4; Length 42;
Best Local Similarity 95.2%; Pred. No. 3e-10;
Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 1 KAGIQECQHQRGRWNCTTV 21
Db 9 KIGIQECQHQRGRWNCTTV 29
RESULT 6
ABB21891
ID ABB21891 standard; protein; 42 AA.
XX AC ABB21891;
XX DT 23-JAN-2002 (first entry)
XX DE Protein #3890 encoded by probe for measuring heart cell gene expression.
XX KW Human; gene expression; heart; microarray; vascular system;
XX KW cardiovascular disease; hypertension; cardiac arrhythmia;
XX KW congenital heart disease.
XX OS Homo sapiens.
XX PN WO200157274-A2.
XX PD 09-AUG-2001.
XX PF 30-JAN-2001; 2001WO-US000666.
XX PR 04-FEB-2000; 2000US-0180312P.
XX PR 26-MAY-2000; 2000US-0207456P.
XX PR 30-JUN-2000; 2000US-00608408.
XX PR 03-AUG-2000; 2000US-00632366.
XX PR 21-SEP-2000; 2000US-0234687P.
XX PR 27-SEP-2000; 2000US-0236359P.

PT 04-OCT-2000; 2000GB-00024263.
XX (MOLE-) MOLECULAR DYNAMICS INC.
XX Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2001-48899/53.
XX Single exon nucleic acid probes for analyzing gene expression in human
XX hearts.
XX
XX Claim 15; SEQ ID NO 23661; 530pp; English.
XX
XX The present invention relates to single exon nucleic acid probes for
XX measuring human gene expression in a sample derived from human heart (see
XX CCA21535-ABA41305). The present sequence is a protein encoded by one such
XX probe. The probes may be used for predicting, measuring and displaying
XX gene expression in samples derived from the human heart via microarrays.
XX By measuring gene expression, the probes are useful for predicting,
XX diagnosing, grading, staging, monitoring and prognosing diseases of the
XX human heart and vascular system e.g. cardiovascular disease,
XX hypertension, cardiac arrhythmias and congenital heart disease. Note: The
XX sequence data for this patent did not form part of the printed
XX specification, but was obtained in electronic format directly from WIPO
XX at ftp.wipo.int/pub/published_pct_sequences
XX
XX SQ Sequence 42 AA;
Query Match 92.9%; Score 118; DB 4; Length 42;
Best Local Similarity 95.2%; Pred. No. 3e-10;
Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 KAGIQECQHQRGRWNCTTV 21
DB 9 KIGIQECQHQRGRWNCTTV 29
RESULT 7
ID AAM69719 standard; protein; 42 AA.
XX AAM69719;
XX
XX 06-NOV-2001 (first entry)
XX Human bone marrow expressed probe encoded protein SEQ ID NO: 30025.
XX Human; bone marrow expressed exon; gene expression analysis; probe;
XX microarray; cancer; leukaemia; lymphoma; myeloma.
XX Homo sapiens.
XX WO200157276-A2.
XX
XX 09-AUG-2001.
XX
XX 30-JAN-2001; 2001WO-US0000668.
XX
XX 04-FEB-2000; 2000US-0180312P.
XX 26-MAY-2000; 2000US-0207456P.
XX 30-JUN-2000; 2000US-00608408.
XX 03-AUG-2000; 2000US-00632366.
XX 21-SEP-2000; 2000US-0234687P.
XX 27-SEP-2000; 2000US-0236359P.
XX 04-OCT-2000; 2000GB-00024263.
XX (MOLE-) MOLECULAR DYNAMICS INC.
XX Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2001-48899/53.
XX Human genome-derived single exon nucleic acid probes useful for analyzing

PT gene expression in human bone marrow.
XX Example 4; SEQ ID NO 30025; 658pp + Sequence Listing; English.
XX
XX The present invention provides a number of single exon nucleic acid
XX probes which are derived from genomic sequences expressed in the human
XX bone marrow. They can be used to measure gene expression in bone marrow
XX samples, which may enable the improved diagnosis and treatment of cancers
XX such as lymphoma, leukaemia and myeloma. The present sequence is a
XX protein encoded by one of the probes of the invention
XX
XX SQ Sequence 42 AA;
Query Match 92.9%; Score 118; DB 4; Length 42;
Best Local Similarity 95.2%; Pred. No. 3e-10;
Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 KAGIQECQHQRGRWNCTTV 21
DB 9 KIGIQECQHQRGRWNCTTV 29
RESULT 8
ID AAM57320 standard; protein; 42 AA.
XX AAM57320;
XX
XX 05-NOV-2001 (first entry)
XX Human brain expressed single exon probe encoded protein SEQ ID NO: 29425.
XX Human; brain expressed exon; gene expression analysis; probe; microarray;
XX Alzheimer's disease; multiple sclerosis; schizophrenia; epilepsy; cancer.
XX Homo sapiens.
XX WO200157275-A2.
XX
XX 09-AUG-2001.
XX
XX 30-JAN-2001; 2001WO-US0000667.
XX
XX 04-FEB-2000; 2000US-0180312P.
XX 26-MAY-2000; 2000US-0207456P.
XX 30-JUN-2000; 2000US-00608408.
XX 03-AUG-2000; 2000US-00632366.
XX 21-SEP-2000; 2000US-0234687P.
XX 27-SEP-2000; 2000US-0236359P.
XX 04-OCT-2000; 2000GB-00024263.
XX (MOLE-) MOLECULAR DYNAMICS INC.
XX Penn SG, Hanzel DK, Chen W, Rank DR;
XX WPI; 2001-483446/52.
XX Single exon nucleic acid probes for analyzing gene expression in human
XX brains.
XX Example 4; SEQ ID NO 29425; 650pp + Sequence Listing; English.
XX
XX The present invention provides a number of single exon nucleic acid
XX probes which are derived from genomic sequences expressed in the human
XX brain. They can be used to measure gene expression in brain cell samples,
XX which may enable the diagnosis and improved treatment of nervous system
XX diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,
XX epilepsy and cancers. The present sequence is a protein encoded by one of
XX the probes of the invention
XX
XX SQ Sequence 42 AA;
Query Match 92.9%; Score 118; DB 4; Length 42;

```

Query Match      92.9%; Score 118; DB 4; Length 42;
Best Local Similarity 95.2%; Pred. No. 3e-10;
Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy      1 KAGIQECQHFRGRWNCITV 21
          | | | | | | | | | |
Db      9 KIGIQECQHFRGRWNCITV 29
          | | | | | | | | | |

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PT useful for treating cancers and tumors, lung disorders, hematopoietic
 PT disorders, autoimmune diseases and immune disorders.
 XX
 PS Claim 1 ; Page 13; 210pp; English.
 XX
 CC The invention relates to an isolated NOVX polypeptide selected from
 CC NOV1a, NOV1b, NOV1c, NOV2b, NOV2c, NOV3a, NOV3b, NOV4a, NOV4b,
 CC NOV5a, NOV5b or NOV6-NOV9 polypeptides, their mature form or variant.
 CC Also included are a nucleic acid encoding a NOVX protein or variant; a
 CC vector comprising the nucleic acid; a cell comprising the vector; an anti
 CC -NOVX antibody; and identifying agents that modulate the expression or
 CC activity of NOVX. NOVX, the nucleic acid, antibody and modulators are
 CC useful in the diagnosis, treatment or prevention of developmental
 CC disorders, endocrine disorders, vascular disorders, infectious disease,
 CC anorexia, cancer, neurodegenerative disorders (e.g. Alzheimer's disease,
 CC Parkinson's disease, Huntington's disease, multiple sclerosis and
 CC amyotrophic lateral sclerosis), acute brain injury (e.g. stroke, head
 CC injury and cerebral palsy), central nervous system disorders (e.g.
 CC depression, epilepsy and schizophrenia), lung disorders, reproductive
 CC disorders, disorders affecting carbohydrate metabolism (e.g.
 CC galactosaemia and hereditary fructose intolerance), tissue disorders
 CC (e.g. Wiskott-Aldrich syndrome, thrombocytopaenia, night blindness and
 CC Pick's disease), disorders linked to abnormal angiogenesis, asthma,
 CC azoospermia, learning disabilities, facial dysmorphism, autoimmune
 CC encephalomyelitis, X-linked severe combined immunodeficiency, seizures,
 CC migraines, inflammation, autoimmune disorders, disorders affecting sleep,
 CC appetite, thermoregulation, pain, perception, hormone secretion and
 CC sexual behaviour, immune disorders, haematopoietic disorders or other
 CC disorders related to cell signal processing and metabolic pathway
 CC modulation, gastrointestinal diseases, respiratory disorders, blood
 CC disorders, hepatitis, trauma, regeneration, viral, bacterial or parasitic
 CC infections, hyper- or hypo-thyroidism, endometriosis, fertility,
 CC hypertension, arteriosclerosis, ischaemia, haemolytic anaemia, Werner
 CC syndrome, rheumatoid arthritis, Grave's disease, wound healing, X-linked
 CC mental retardation, psychotic and neurological disorders and neuronal
 CC degeneration. The present sequence represents a NOVX protein
 XX
 SQ Sequence 313 AA;
 Query Match 92.9%; Score 118; DB 5; Length 313;
 Best Local Similarity 95.2%; Pred. No. 2.2e-09;
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 KAGIQEQHQPRGRWNCTTV 21
 Db 71 KIGIQEQHQPRGRWNCTTV 91
 RESULT 13
 ADM80169
 ID ADM80169 standard; protein; 313 AA.
 AC ADM80169;
 XX
 XX 03-JUN-2004 (first entry)
 DT
 DE Human NOVX protein, Nov1c.
 XX
 KW Gene therapy; human; NOVX; neurodegenerative disease;
 KW Alzheimer's disease; Parkinson's disease; multiple sclerosis;
 KW acute brain injury; stroke; cerebral palsy;
 KW central nervous system dysfunction; epilepsy; depression; schizophrenia;
 KW autoimmune disorder; inflammation; aging; cancer.
 XX
 OS Homo sapiens.
 XX
 XX US2003170838-A1.
 PN
 XX 11-SEP-2003.
 PD
 XX 17-SEP-2001; 2001US-00954342.
 PF
 XX 15-SEP-2000; 2000US-0232675P.
 PR

PR 15-SEP-2000; 2000US-0232676P.
 PR 18-SEP-2000; 2000US-0232679P.
 PR 18-SEP-2000; 2000US-0233382P.
 PR 18-SEP-2000; 2000US-0233402P.
 PR 19-SEP-2000; 2000US-0233521P.
 PR 19-SEP-2000; 2000US-0233522P.
 PR 19-SEP-2000; 2000US-0233801P.
 PR 20-SEP-2000; 2000US-0233960P.
 PR 06-OCT-2000; 2000US-0238398P.
 PR 13-OCT-2000; 2000US-0240498P.
 PR 08-JAN-2001; 2001US-0260284P.
 PR 11-JAN-2001; 2001US-0260973P.
 PR 29-JAN-2001; 2001US-0264794P.
 PR 09-MAR-2001; 2001US-0274862P.
 XX (MISH//) MISHRA V S.
 PA (SPYT//) SPYTEK K A.
 PA (TAUP//) TAUPIER R J.
 PA (VERN//) VERNET C A.
 PA (COLM//) COLMAN S D.
 PA (GORM//) GORMAN L.
 PA (TCHE//) TCHERNEV V T.
 PA (MALY//) MALYANKAR U M.
 PA (SHEN//) SHENOY S.
 PA (PADI//) PADIGARU M.
 PA (GERL//) GERLACH V L.
 PA (MACD//) MACDOUGALL J R.
 PA (SMIT//) SMITHSON G.
 PA (MILL//) MILLET I.
 PA (PEYM//) PEYMAN J.
 PA (STON//) STONE D.
 PA (GUNT//) GUNTHER E.
 PA (ELLE//) ELLERMAN K.
 PA (LILL//) LI L.
 PA (RAST//) RASTELLI L.
 PA (ZERH//) ZERHUSEN B.
 XX
 PI Mishra VS, Spytek KA, Taupier RJ, Vernet CA, Colman SD, Gorman L;
 PI Tchernev VT, Malyankar UM, Sheno S, Padigar M, Gerlach VL;
 PI MacDougall JR, Smithson G, Millet I, Peyman J, Stoney D, Gunther E;
 PI Ellerman K, Li L, Rastelli L, Zerhusen B;
 XX WPI; 2003-898268/82.
 DR N-PSDB; ADM80168.
 XX
 PT New NOVX polypeptide, useful for preparing a composition for treating or
 PT preventing a NOVX-associated disorder, e.g., neurodegenerative or
 PT autoimmune disorders or cancer.
 XX
 PS Claim 1; Page 8; 128pp; English.
 XX
 CC The invention new isolated NOVX polypeptides and nucleic acids. The
 CC polypeptide, nucleic acid or antibody is useful for preparing a
 CC composition for treating or preventing a NOVX-associated disorder, such
 CC as neurodegenerative disease (e.g. Alzheimer's disease, Parkinson's
 CC disease, multiple sclerosis), acute brain injury (e.g. stroke, cerebral
 CC palsy), central nervous system dysfunctions (e.g. epilepsy, depression,
 CC schizophrenia) or autoimmune disorders, inflammation, aging or cancer.
 CC The present sequence represents a human NOVX polypeptide of the
 CC invention.
 XX
 SQ Sequence 313 AA;
 Query Match 92.9%; Score 118; DB 7; Length 313;
 Best Local Similarity 95.2%; Pred. No. 2.2e-09;
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 KAGIQEQHQPRGRWNCTTV 21
 Db 71 KIGIQEQHQPRGRWNCTTV 91
 RESULT 14

AAU96846
 ID AAU96846 standard; protein; 352 AA.
 AC AAU96846;
 XX
 DT 30-JUL-2002 (first entry)
 XX
 DE Human Wnt-like protein NOV1a variant.
 XX
 KW Human; NOVX; developmental disorder; endocrine disorder;
 KW vascular disorder; infectious disease; anorexia; cancer; stroke;
 KW neurodegenerative disorder; Alzheimer's disease; acute brain injury;
 KW central nervous system disorder; depression; lung disorder;
 KW reproductive disorder; tissue disorder; thrombocytopaenia; migraine;
 KW angiogenesis; asthma; X-linked severe combined immunodeficiency;
 KW inflammation; autoimmune disorder; immune disorder; blood disorder;
 KW haematopoietic disorder; gastrointestinal disease; respiratory disorder;
 KW hepatitis; fertility; hypertension; arteriosclerosis; ischaemia;
 KW rheumatoid arthritis; Grave's disease; wound healing.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 16
 FT /note= "Wild-type Ala substituted by Thr"
 FT Misc-difference 224
 FT /note= "Wild-type Phe substituted by Leu"
 FT Misc-difference 287
 FT /note= "Wild-type Thr substituted by Ala"
 FT Misc-difference 294
 FT /note= "Wild-type Asp substituted by Gly"
 XX
 FT
 FT
 PN WO200224733-A2.
 XX
 PD 28-MAR-2002.
 XX
 PF 17-SEP-2001; 2001WO-US029115.
 XX
 PR 15-SEP-2000; 2000US-0232675P.
 PR 15-SEP-2000; 2000US-0232678P.
 PR 15-SEP-2000; 2000US-0232679P.
 PR 18-SEP-2000; 2000US-0233382P.
 PR 18-SEP-2000; 2000US-0233402P.
 PR 19-SEP-2000; 2000US-0233521P.
 PR 19-SEP-2000; 2000US-0233522P.
 PR 19-SEP-2000; 2000US-0233801P.
 PR 20-SEP-2000; 2000US-0233960P.
 PR 06-OCT-2000; 2000US-0238398P.
 PR 13-OCT-2000; 2000US-0240284P.
 PR 13-OCT-2000; 2000US-0240498P.
 PR 11-JAN-2001; 2001US-0260973P.
 PR 26-JAN-2001; 2001US-0264274P.
 PR 09-MAR-2001; 2001US-0274862P.
 XX
 PA (CURA-) CURAGEN CORP.
 XX
 PI Mishra VS, Syptek VA, Taupier RJ, Vernet CM, Colman SD;
 PI Gorman L, Tchernev VT, Malyankar UM, Shenoy S, Tchernev VT;
 PI Padigaru M, Fatturajan M, Burgess CE, Smithson G, Millet I;
 PI Peyman JA, Stone D, Gunther E, Ellerman K;
 XX
 DR WPI; 2002-383182/41.
 XX
 PT New cytoplasmic, nuclear, membrane bound and secreted NOVX polypeptides,
 PT useful for treating cancers and tumors, lung disorders, hematopoietic
 PT disorders, autoimmune diseases and immune disorders.
 XX
 PS Example 2; Page; 210pp; English.
 XX
 CC The invention relates to an isolated NOVX polypeptide selected from
 CC NOV1a, NOV1b, NOV1c, NOV2a, NOV2b, NOV2c, NOV3a, NOV3b, NOV4a, NOV4b,
 CC NOV5a, NOV5b or NOV6-NOV9 polypeptides, their mature form or variant.
 CC Also included are a nucleic acid encoding a NOVX protein or variant; a

vector comprising the nucleic acid; a cell comprising the vector; an anti
 -NOVX antibody; and identifying agents that modulate the expression or
 activity of NOVX. NOVX, the nucleic acid, antibody and modulators are
 useful in the diagnosis, treatment or prevention of developmental
 disorders, endocrine disorders, vascular disorders, infectious disease,
 anorexia, cancer, neurodegenerative disorders (e.g. Alzheimer's disease,
 Parkinson's disease, Huntington's disease, multiple sclerosis and
 amyotrophic lateral sclerosis), acute brain injury (e.g. stroke, head
 injury and cerebral palsy), central nervous system disorders (e.g.
 depression, epilepsy and schizophrenia), lung disorders, reproductive
 disorders, disorders affecting carbohydrate metabolism (e.g.
 galactosaemia and hereditary fructose intolerance), tissue disorders
 (e.g. Wiskott-Aldrich syndrome, thrombocytopaenia, night blindness and
 Pick's disease), disorders linked to abnormal angiogenesis, asthma,
 azoospermia, learning disabilities, facial dysmorphism, autoimmune
 encephalomyelitis, X-linked severe combined immunodeficiency, seizures,
 migraines, inflammation, autoimmune disorders, disorders affecting sleep,
 appetite, thermoregulation, pain, perception, hormone secretion and
 sexual behaviour, immune disorders, haematopoietic disorders or other
 disorders related to cell signal processing and metabolic pathway
 modulation, gastrointestinal diseases, respiratory disorders, blood
 disorders, hepatitis, trauma, regeneration, viral bacterial or parasitic
 infections, hyper- or hypo-thyroidism, endometriosis, fertility,
 hypertension, arteriosclerosis, ischaemia, haemolytic anaemia, Werner
 syndrome, rheumatoid arthritis, Grave's disease, wound healing, X-linked
 mental retardation, psychotic and neurological disorders and neuronal
 degeneration. The present sequence represents a NOVX variant protein.
 CC Note: The present sequence is not shown in the specification but was
 CC created by the indexer using the information in example 2
 XX
 SQ Sequence 352 AA;
 Query Match 92.9%; Score 118; DB 5; Length 352;
 Best Local Similarity 95.2%; Pred. No. 2.5e-09;
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 KAGIQEQCHQFGRRRWNTTV 21
 Db 71 KIGIQEQCHQFGRRRWNTTV 91
 RESULT 15
 ABG60221
 ID ABG60221 standard; protein; 352 AA.
 XX
 AC ABG60221;
 XX
 DT 30-JUL-2002 (first entry)
 XX
 DE Human Wnt-like protein NOV1a.
 XX
 KW Human; NOVX; developmental disorder; endocrine disorder;
 KW vascular disorder; infectious disease; anorexia; cancer; stroke;
 KW neurodegenerative disorder; Alzheimer's disease; acute brain injury;
 KW central nervous system disorder; depression; lung disorder;
 KW reproductive disorder; tissue disorder; thrombocytopaenia; migraine;
 KW angiogenesis; asthma; X-linked severe combined immunodeficiency;
 KW inflammation; autoimmune disorder; immune disorder; blood disorder;
 KW haematopoietic disorder; gastrointestinal disease; respiratory disorder;
 KW hepatitis; fertility; hypertension; arteriosclerosis; ischaemia;
 KW rheumatoid arthritis; Grave's disease; wound healing.
 XX
 OS Homo sapiens.
 XX
 PN WO200224733-A2.
 XX
 PD 28-MAR-2002.
 XX
 PF 17-SEP-2001; 2001WO-US029115.
 XX
 PR 15-SEP-2000; 2000US-0232675P.
 PR 15-SEP-2000; 2000US-0232678P.
 PR 15-SEP-2000; 2000US-0232679P.
 PR 18-SEP-2000; 2000US-0233382P.
 PR 18-SEP-2000; 2000US-0233402P.
 PR 19-SEP-2000; 2000US-0233521P.
 PR 19-SEP-2000; 2000US-0233522P.
 PR 19-SEP-2000; 2000US-0233801P.
 PR 20-SEP-2000; 2000US-0233960P.
 PR 06-OCT-2000; 2000US-0238398P.
 PR 13-OCT-2000; 2000US-0240284P.
 PR 13-OCT-2000; 2000US-0240498P.
 PR 11-JAN-2001; 2001US-0260973P.
 PR 26-JAN-2001; 2001US-0264274P.
 PR 09-MAR-2001; 2001US-0274862P.
 XX
 PA (CURA-) CURAGEN CORP.
 XX
 PI Mishra VS, Syptek VA, Taupier RJ, Vernet CM, Colman SD;
 PI Gorman L, Tchernev VT, Malyankar UM, Shenoy S, Tchernev VT;
 PI Padigaru M, Fatturajan M, Burgess CE, Smithson G, Millet I;
 PI Peyman JA, Stone D, Gunther E, Ellerman K;
 XX
 DR WPI; 2002-383182/41.
 XX
 PT New cytoplasmic, nuclear, membrane bound and secreted NOVX polypeptides,
 PT useful for treating cancers and tumors, lung disorders, hematopoietic
 PT disorders, autoimmune diseases and immune disorders.
 XX
 PS Example 2; Page; 210pp; English.
 XX
 CC The invention relates to an isolated NOVX polypeptide selected from
 CC NOV1a, NOV1b, NOV1c, NOV2a, NOV2b, NOV2c, NOV3a, NOV3b, NOV4a, NOV4b,
 CC NOV5a, NOV5b or NOV6-NOV9 polypeptides, their mature form or variant.
 CC Also included are a nucleic acid encoding a NOVX protein or variant; a

Job time : 127.5 secs

PR 18-SEP-2000; 2000US-0233382P.
 PR 18-SEP-2000; 2000US-0233402P.
 PR 19-SEP-2000; 2000US-0233521P.
 PR 19-SEP-2000; 2000US-0233522P.
 PR 19-SEP-2000; 2000US-0233801P.
 PR 20-SEP-2000; 2000US-0233960P.
 PR 06-OCT-2000; 2000US-0238398P.
 PR 13-OCT-2000; 2000US-0240284P.
 PR 13-OCT-2000; 2000US-0240498P.
 PR 11-JAN-2001; 2001US-0260973P.
 PR 26-JAN-2001; 2001US-0264274P.
 PR 09-MAR-2001; 2001US-0274862P.
 XX
 XX (CURA-) CURAGEN CORP.
 XX
 XX Mishra VS, Syptek KA, Taupier RJ, Vernet CM, Colman SD;
 PI Gorman L, Tchernev VT, Malyankar UM, Shenoy S, Tchernev VT;
 PI Padigaru M, Patturajan M, Burgess CE, Smithson G, Millet I;
 PI Peyman JA, Stone D, Gunther E, Ellerman K;
 XX
 XX WPI; 2002-383182/41.
 DR N-PSDB; ABK71909.
 DR
 XX
 XX
 PT New cytoplasmic, nuclear, membrane bound and secreted NOVX polypeptides,
 PT useful for treating cancers and tumors, lung disorders, hematopoietic
 PT disorders, autoimmune diseases and immune disorders.
 XX
 XX
 PS Claim 1 ; Page 11; 210pp; English.
 XX
 CC The invention relates to an isolated NOVX polypeptide selected from
 CC NOV1a, NOV1b, NOV2a, NOV2b, NOV3a, NOV3b, NOV4a, NOV4b,
 CC NOV5a, NOV5b or NOV6-NOV9 polypeptides, their mature form or variant.
 CC Also included are a nucleic acid encoding a NOVX protein or variant; a
 CC vector comprising the nucleic acid; a cell comprising the vector; an anti
 CC -NOVX antibody; and identifying agents that modulate the expression or
 CC activity of NOVX. NOVX, the nucleic acid, antibody and modulators are
 CC useful in the diagnosis, treatment or prevention of developmental
 CC disorders, endocrine disorders, vascular disorders, infectious disease,
 CC anorexia, cancer, neurodegenerative disorders (e.g. Alzheimer's disease,
 CC Parkinson's disease, Huntington's disease, multiple sclerosis and
 CC amyotrophic lateral sclerosis), acute brain injury (e.g. stroke, head
 CC injury and cerebral palsy), central nervous system disorders (e.g.
 CC depression, epilepsy and schizophrenia), lung disorders, reproductive
 CC disorders, disorders affecting carbohydrate metabolism (e.g.
 CC galactosaemia and hereditary fructose intolerance), tissue disorders
 CC (e.g. Wiskott-aldrich syndrome, thrombocytopaenia, night blindness and
 CC Pick's disease), disorders linked to abnormal angiogenesis, asthma,
 CC azoospermia, learning disabilities, facial dysmorphism, autoimmune
 CC encephalomyelitis, X-linked severe combined immunodeficiency, seizures,
 CC migraines, inflammation, autoimmune disorders, disorders affecting sleep,
 CC appetite, thermoregulation, pain, perception, hormone secretion and
 CC sexual behaviour, immune disorders, haematopoietic disorders or other
 CC disorders related to cell signal processing and metabolic pathway
 CC modulation, gastrointestinal diseases, respiratory disorders, blood
 CC disorders, hepatitis, trauma, regeneration, viral, bacterial or parasitic
 CC infections, hyper- or hypo-thyroidism, endometriosis, fertility,
 CC hypertension, arteriosclerosis, ischaemia, haemolytic anaemia, Werner
 CC syndrome, rheumatoid arthritis, Grave's disease, wound healing, X-linked
 CC mental retardation, psychotic and neurological disorders and neuronal
 CC degeneration. The present sequence represents a NOVX protein
 XX
 SQ Sequence 352 AA;
 Query Watch 92.9%; Score 118; DB 5; Length 352;
 Best Local Similarity 95.2%; Pred. NO. 2.5e-09;
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 KAGIQEQHQFRGRWNCCTTV 21
 Db 71 KIGIQEQHQFRGRWNCCTTV 91
 Search completed: March 31, 2005, 02:53:05

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 31, 2005, 02:42:39 ; Search time 27 Seconds
(without alignments)
78.399 Million cell updates/sec

Title: US-10-816-720-1

Perfect score: 127

Sequence: 1 KAGIQEQHQFRRRNCTTWS 22

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR 79:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	127	100.0	352	2 A39532	Wnt-3A protein - m
2	119	93.7	352	2 A48828	wingless homolog X
3	117	92.1	333	2 A47536	gene Wnt3 protein
4	117	92.1	333	2 A35503	Wnt-3 protein - mo
5	103	81.1	372	2 B36470	Wnt-5b protein - m
6	100	78.7	360	2 S34173	wnt-5c protein - A
7	97	76.4	359	2 A56549	cell-cell signalin
8	97	76.4	365	2 A48914	proto-oncogene Wnt
9	97	76.4	379	2 D36470	Wnt-5a protein - m
10	94	74.0	352	2 S24559	Wnt-2 protein - fr
11	94	74.0	357	2 B56549	cell-cell signalin
12	89	70.1	468	2 A29650	wingless (wg) prot
13	89	70.1	469	1 TVPFT1	transforming prote
14	89	70.1	1004	2 A48821	Wnt-5 protein - fr
15	88	69.3	372	2 T09612	secreted glycoprot
16	87	68.5	442	2 I50110	Wnt10a protein - z
17	86	67.7	351	2 JC2451	Cwnt-4 protein pre
18	86	67.7	351	2 C36470	Wnt-4 protein - mo
19	86	67.7	352	2 A49146	developmental regu
20	81	63.8	349	2 H36470	Wnt-7b protein - m
21	81	63.8	360	2 T26037	hypothetical prote
22	81	63.8	360	2 S32695	Wnt-2 protein - Ca
23	81	63.8	364	2 F36470	Wnt-6 protein - mo
24	81	63.8	365	2 JCT694	soluble-type glyco
25	81	63.8	417	2 JCT693	soluble-type glyco
26	81	63.8	417	2 B59392	Wnt10a protein pro
27	79	62.2	134	2 I50729	gene Wnt-1 protein
28	78	61.4	360	2 S00834	int-1-like protein
29	78	61.4	360	2 B36470	Wnt-2 protein - mo

30 75 59.1 370 1 TVMVT1 transforming prote
31 75 59.1 370 1 TVHUT1 transforming prote
32 75 59.1 370 1 TVMST1 transforming prote
33 74 58.3 361 2 I50505 gene wnt8 protein
34 74 58.3 370 2 S15013 wnt-1 protein - ze
35 73 57.5 348 2 T10502 Wnt-7a protein - I
36 73 57.5 349 2 G36470 Wnt-7a protein - m
37 73 57.5 369 2 S13721 Wnt-1 protein prec
38 73 57.5 389 2 I49263 potential oncogene
39 73 57.5 389 2 A59392 Wnt10b protein pre
40 70 55.1 335 2 T43627 hypothetical prote
41 70 55.1 371 1 TVXLT1 transforming prote
42 70 55.1 372 2 S32694 Wnt-1 protein - Ca
43 68 53.5 387 2 S18771 developmental regu
44 65 51.2 428 2 I51680 Xwnt-8b - African
45 63 49.6 357 2 I50690 Wnt-8C - chicken

ALIGNMENTS

RESULT 1

A39532

Wnt-3A protein - mouse

C:Species: Mus musculus (house mouse)

C:Date: 24-Jan-1992 #sequence_revision 24-Jan-1992 #text_change 09-Jul-2004

C:Accession: A39532

R:Roelink, H.; Nusse, R.

Genes Dev. 5, 381-388, 1991

A:Title: Expression of two members of the Wnt family during mouse development--restricted

A:Reference number: A39532; MUID:91160971; PMID:2001840

A:Accession: A39532

A>Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-352 <ROB>

A:Cross-references: UNIPROT:P27467; GB:X56842; NID:G55433; PIDN:CAA40173.1; PID:G55434

C:Superfamily: int-1 transforming protein

Query Match 100.0%; Score 127; DB 2; Length 352;

Best Local Similarity 100.0%; Pred. No. 1.2e-11;

Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 KAGIQEQHQFRRRNCTTWS 22

Db 71 KAGIQEQHQFRRRNCTTWS 92

RESULT 2

A48828

wingless homolog Xwnt-3A protein - African clawed frog

C:Species: Xenopus laevis (African clawed frog)

C:Date: 01-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004

C:Accession: A48828

R:Wolda, S.B.; Moody, C.J.; Moon, R.T.

Dev. Biol. 155, 46-57, 1993

A:Title: Overlapping expression of Xwnt-3A and Xwnt-1 in neural tissue of Xenopus laevis

A:Reference number: A48828; MUID:93106336; PMID:8416844

A:Accession: A48828

A>Status: preliminary; nucleic acid sequence not shown; not compared with conceptual trar

A:Molecule type: mRNA

A:Residues: 1-352 <WOL>

A:Cross-references: UNIPROT:P31285

A>Note: sequence extracted from NCBI backbone (NCBI:P121343)

C:Superfamily: int-1 transforming protein

Query Match 93.7%; Score 119; DB 2; Length 352;

Best Local Similarity 90.9%; Pred. No. 1.9e-10;

Matches 20; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 KAGIQEQHQFRRRNCTTWS 22

Db 71 KIGIQEQHQFRRRNCTTWN 92

```

RESULT 3
A47536
Gene WNT3 protein - human
C:Species: Homo sapiens (man)
C:Date: 07-Apr-1994 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C:Accession: A47536
R:Roelink, H.; Wang, J.; Black, D.M.; Solomon, E.; Nusse, R.
Genomics 17, 790-792, 1993
A:Title: Molecular cloning and chromosomal localization to 17q21 of the human WNT3 gene.
A:Reference number: A47536; MUID:94063935; PMID:8244403
A:Accession: A47536
A>Status: preliminary; not compared with conceptual translation
A:Molecule type: nucleic acid
A:Residues: 1-333 <ROS>
A:Cross-references: UNIPROT:P56703
A:Experimental source: fetus
A:Note: sequence extracted from NCBI backbone (NCBIP:139704)
C:Superfamily: int-1 transforming protein

Query Match      92.1%; Score 117; DB 2; Length 333;
Best Local Similarity 90.5%; Pred. No. 3.7e-10;
Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 KAGIQECQHQRGRWNCITV 21
Db 74 KLGIQECQHQRGRWNCITTI 94

RESULT 4
A35503
Wnt-3 protein - mouse
C:Species: Mus musculus (house mouse)
C:Date: 09-Nov-1990 #sequence_revision 09-Nov-1990 #text_change 09-Jul-2004
C:Accession: A35503
R:Roelink, H.; Wagenaar, E.; Lopes da Silva, S.; Nusse, R.
Proc. Natl. Acad. Sci. U.S.A. 87, 4519-4523, 1990
A:Title: Wnt-3, a gene activated by proviral insertion in mouse mammary tumors, is homologous to the Drosophila wingless gene.
A:Reference number: A35503; MUID:90280407; PMID:2162045
A:Accession: A35503
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-355 <ROE>
A:Cross-references: UNIPROT:P17553; GB:M32502; NID:G198428; PIDN:AAB38109.1; PID:G293672
C:Superfamily: int-1 transforming protein

Query Match      92.1%; Score 117; DB 2; Length 355;
Best Local Similarity 90.5%; Pred. No. 3.9e-10;
Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 KAGIQECQHQRGRWNCITV 21
Db 74 KLGIQECQHQRGRWNCITTI 94

RESULT 5
E36470
Wnt-5b protein - mouse
C:Species: Mus musculus (house mouse)
C:Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
C:Accession: E36470
R:Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
Genes Dev. 4, 2319-2332, 1990
A:Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult mouse development.
A:Reference number: A36470; MUID:91122634; PMID:2279700
A:Accession: E36470
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-372 <GAV>
A:Cross-references: UNIPROT:Q91XF5; GB:M89799; NID:G202405; PIDN:AAA40568.1; PID:G202406
C:Superfamily: int-1 transforming protein

Query Match      81.1%; Score 103; DB 2; Length 372;

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Best Local Similarity 81.0%; Pred. No. 5.3e-08;
Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

```

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QY 1 KAGIQECQHQRGRWNCITV 21
Db 90 KTGIRECQHQRGRWNCSTV 110

```

RESULT 6

```

S34173
Wnt-5c protein - African clawed frog
C:Species: Xenopus laevis (African clawed frog)
C:Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C:Accession: S34173; S45242
R:Koster, J.G.; Kuiken, G.A.; Stegeman, B.; Peterson, J.; Eizema, K.; Stabel, L.; Dekker, J.
submitted to the EMBL Data Library, June 1993
A:Description: Differential Xwt-5C expression during early development of Xenopus laevis
A:Reference number: S34173
A:Accession: S34173
A:Molecule type: mRNA
A:Residues: 1-360 <KOS>
A:Cross-references: UNIPROT:P33945; EMBL:X73510; NID:G313267; PIDN:CAA51916.1; PID:G31326
R:Kuiken, G.A.; Bertens, P.J.A.; Peterson-Maduro, J.; Veenstra, G.J.C.; Koster, J.G.; Des
Nucleic Acids Res. 22, 1675-1680, 1994
A:Title: The promoter of the Xwt-5C gene contains octamer and AP-2 motifs functional in
A:Reference number: S45242; MUID:94261437; PMID:8202371
A:Accession: S45242
A:Molecule type: DNA
A:Residues: 1-28 <KUL>
C:Superfamily: int-1 transforming protein

Query Match      78.7%; Score 100; DB 2; Length 360;
Best Local Similarity 76.2%; Pred. No. 1.5e-07;
Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 KAGIQECQHQRGRWNCITV 21
Db 78 KTGIRECQHQRGRWNCSTV 98

```

RESULT 7

```

A56549
cell-cell signaling molecule Awnt-5A precursor - axolotl
C:Species: Ambystoma mexicanum (axolotl)
C:Date: 21-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 09-Jul-2004
C:Accession: A56549; S24999
R:Busse, U.; Seguin, C.
Mech. Dev. 40, 63-72, 1993
A:Title: Isolation of cDNAs for two closely related members of the axolotl Wnt family, A
A:Reference number: A56549; MUID:93183769; PMID:8443107
A:Accession: A56549
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-359 <BUS>
A:Cross-references: UNIPROT:Q06442; EMBL:Z14047; NID:G62426; PIDN:CAA78415.1; PID:G62427
A:Experimental source: embryo
A:Note: sequence extracted from NCBI backbone (NCBIP:126894)
C:Superfamily: int-1 transforming protein

Query Match      76.4%; Score 97; DB 2; Length 359;
Best Local Similarity 76.2%; Pred. No. 4.2e-07;
Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 KAGIQECQHQRGRWNCITV 21
Db 77 KTGIRECQHQRGRWNCSTV 97

```

RESULT 8

```

A48914
proto-oncogene Wnt-5A precursor - human
C:Species: Homo sapiens (man)
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004

```

C;Accession: A48914
R;Clark, C.C.; Cohen, I.; Eichstetter, I.; Cannizzaro, L.A.; McPherson, J.D.; Wassmuth, J.
Genomics 18, 249-260, 1993
A;Title: Molecular cloning of the human proto-oncogene Wnt-5A and mapping of the gene (W
A;Reference number: A48914; MUID:94116991; PMID:8288227
A;Accession: A48914
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-365 <CLA>
A;Cross-references: UNIPROT:P41221; GB:L20861; NID:9348917; PIDN:AAAL6842.1; PID:9348918
C;Genetics:
A;Gene: GDB:WNT5A
A;Cross-references: GDB:141726; OMIM:164975
A;Map position: 3p21-3p14
C;Superfamily: int-1 transforming protein

Query Match 76.4%; Score 97; DB 2; Length 365;
Best Local Similarity 76.2%; Pred. No. 4.2e-07;
Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Oy 1 KAGIQEQHQFRRRWNCSTV 21
Db 83 KTGIEKCYQFRRRWNCSTV 103

RESULT 9
D36470
Wnt-5a protein - mouse
C;Species: Mus musculus (house mouse)
C;Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
R;Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
Genes Dev. 4, 2319-2332, 1990
A;Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult m
A;Reference number: A36470; MUID:91122634; PMID:2279700
A;Accession: D36470
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-379 <GAV>
A;Cross-references: UNIPROT:P22725; GB:M89798; NID:9202403; PIDN:AAA40567.1; PID:9202404
C;Superfamily: int-1 transforming protein

Query Match 76.4%; Score 97; DB 2; Length 379;
Best Local Similarity 76.2%; Pred. No. 4.4e-07;
Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Oy 1 KAGIQEQHQFRRRWNCSTV 21
Db 98 KTGIEKCYQFRRRWNCSTV 118

RESULT 10
S24559
Wnt-2 protein - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004
R;Nusse, R.
submitted to the EMBL Data Library, March 1992
A;Reference number: S24559
A;Accession: S24559
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-352 <NUS>
A;Cross-references: UNIPROT:P28465; EMBL:X64735; NID:g7904; PID:g7905
C;Genetics:
A;Gene: Wnt-2
A;Cross-references: FlyBase:FBgn0004360
C;Superfamily: int-1 transforming protein

Query Match 74.0%; Score 94; DB 2; Length 352;
Best Local Similarity 78.9%; Pred. No. 1.2e-06;
Matches 15; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Oy 3 GIQEQHQFRRRWNCSTV 21
Db 61 GAQEQHQFRRRWNCSEV 79

RESULT 11
B56549
cell-cell signaling molecule Awnt-5B precursor - axolotl
C;Species: Ambystoma mexicanum (axolotl)
C;Date: 21-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 09-Jul-2004
C;Accession: B56549; S25000
R;Busse, U.; Seguin, C.
Mech. Dev. 40, 63-72, 1993
A;Title: Isolation of cDNAs for two closely related members of the axolotl Wnt family, A
A;Reference number: A56549; MUID:93183769; PMID:8443107
A;Accession: B56549
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-357 <BUS>
A;Cross-references: UNIPROT:Q06443; EMBL:Z14048; NID:g62428; PIDN:CAA78416.1; PID:g62429
A;Experimental source: embryo
A;Note: sequence extracted from NCBI backbone (NCBIP:126896)
C;Superfamily: int-1 transforming protein

Query Match 74.0%; Score 94; DB 2; Length 357;
Best Local Similarity 71.4%; Pred. No. 1.2e-06;
Matches 15; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Oy 1 KAGIQEQHQFRRRWNCSTV 21
Db 75 KTGIEKCYQFRRRWNCSTV 95

RESULT 12
A29650
wingless (wg) protein precursor - fruit fly (Drosophila melanogaster)
N;Alternate names: int-1 homolog (Dint-1)
C;Species: Drosophila melanogaster
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
C;Accession: A29650; S41671; S41157
R;Rijsewijk, F.; Schuurmann, M.; Wagenaar, E.; Parren, P.; Weigel, D.; Nusse, R.
Cell 50, 649-657, 1987
A;Title: The Drosophila homolog of the mouse mammary oncogene int-1 is identical to the
A;Reference number: A29650; MUID:87273528; PMID:3111720
A;Accession: A29650
A;Molecule type: mRNA
A;Residues: 1-468 <RIJ>
A;Cross-references: UNIPROT:P09615; GB:M17230; NID:g157765; PIDN:AAA28647.1; PID:g157766
R;van den Heuvel, M.; Harryman-Samos, C.; Klingensmith, J.; Perrimon, N.; Nusse, R.
EMBO J. 12, 5293-5302, 1993
A;Title: Mutations in the segment polarity genes wingless and porcupine impair secretion
A;Reference number: S41671; MUID:94085405; PMID:8262072
A;Accession: S41671
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: nucleic acid
A;Residues: 1-468 <VAN>
R;Nagy, L.M.; Carroll, S.
Nature 367, 460-463, 1994
A;Title: Conservation of wingless patterning functions in the short-germ embryos of Trib
A;Reference number: S41156; MUID:94150623; PMID:8107804
A;Accession: S41157
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 101-468 <NAG>
C;Genetics:
A;Gene: FlyBase:wg
A;Cross-references: FlyBase:FBgn0004009
C;Superfamily: int-1 transforming protein
C;Keywords: glycoprotein

Query Match 70.1%; Score 89; DB 2; Length 468;
Best Local Similarity 82.4%; Pred. No. 8.7e-06;

Matches 14; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 4 IQECQHQRGRWNCSTT 20
| | | | | | | | | | | | | | | |
Db 90 ISECQHQRNRWNCST 106

RESULT 13

TVFFTI
transforming protein int-1 - fruit fly (Drosophila melanogaster)
C:Species: Drosophila melanogaster
C:Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 16-Feb-1997
C:Accession: A31337
R:Uzvoelgyi, E.; Kiss, I.; Pitt, A.; Arsenian, S.; Ingvarsson, S.; Udvardy, A.; Hamada, Proc. Natl. Acad. Sci. U.S.A. 85, 3034-3038, 1988
A:Title: Drosophila homolog of the murine int-1 protooncogene.
A:Reference number: A31337; MUID:88203634; PMID:3129722
A:Accession: A31337
A:Molecule type: mRNA
A:Residues: 1-469 <UZV>
C:Genetics:
A:Gene: int-1
A:Cross-references: FlyBase:FBgn0004009
C:Superfamily: int-1 transforming protein
C:Keywords: glycoprotein; oncogene; transforming protein
F:49,103,108,415/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 70.1%; Score 89; DB 1; Length 469;
Best Local Similarity 82.4%; Pred. No. 8.7e-06;
Matches 14; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 4 IQECQHQRGRWNCSTT 20
| | | | | | | | | | | | | | | |
Db 90 ISECQHQRNRWNCST 106

RESULT 14

A48821
Wnt-5 protein - fruit fly (Drosophila melanogaster)
N:Alternate names: intercellular signaling protein Dmnt-5
C:Species: Drosophila melanogaster
C:Date: 01-Dec-1993 #sequence_revision 01-Mar-1996 #text_change 09-Jul-2004
C:Accession: A48821; S27815
R:Eisenberg, L.M.; Ingham P.W.; Brown, A.M. Dev. Biol. 154, 73-83, 1992
A:Title: Cloning and characterization of a novel Drosophila Wnt gene, Dmnt-5, a putative A:Reference number: A48821; MUID:93050786; PMID:1358729
A:Contents: embryo
A:Accession: A48821
A>Status: preliminary; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-1004 <EIS>
A:Cross-references: UNIPROT:P28466; EMBL:M97450; NID:g158805; PID:g158806
A>Note: sequence extracted from NCBI backbone (NCBIP:117188)
C:Genetics:
A:Gene: FlyBase:Wnt5
A:Cross-references: FlyBase:FBgn0010194

Query Match 70.1%; Score 89; DB 2; Length 1004;
Best Local Similarity 63.6%; Pred. No. 1.7e-05;
Matches 14; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 KAGIQECQHQRGRWNCSTVS 22
: | | | | | | | | | | | | | | :
Db 577 RAAIQECQFQFNRRWNCSTN 598

RESULT 15

T09612
secreted glycoprotein Wnt-13 - human
C:Species: Homo sapiens (man)
C:Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 21-Jul-2000
C:Accession: T09612

R:Katoh, M.; Hirai, M.; Sugimura, T.; Terada, M. Oncogene 13, 873-876, 1996
A:Title: Cloning, expression and chromosomal localization of Wnt-13, a novel member of the A:Reference number: Z16773; MUID:96358637; PMID:8761309
A:Accession: T09612
A>Status: preliminary; translated from GE/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-372 <KAT>
A:Cross-references: EMBL:Z71621; NID:g1524104; PIDN:CAA96283.1; PID:g1524105
C:Genetics:
A:Gene: Wnt-13
A:Map position: lp13
C:Superfamily: int-1 transforming protein

Query Match 69.3%; Score 88; DB 2; Length 372;
Best Local Similarity 77.8%; Pred. No. 9.9e-06;
Matches 14; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 4 IQECQHQRGRWNCSTTV 21
| | | | | | | | | | | | | | | |
Db 85 IRECOHQFRRHRWNCSTTL 102

Search completed: March 31, 2005, 02:58:02
Job time : 28 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 31, 2005, 02:41:24 ; Search time 116.5 Seconds
(without alignments)
96.702 Million cell updates/sec

Title: US-10-816-720-1

Perfect score: 127

Sequence: 1 KAGIQEQHQFRGRWNCTVS 22

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_03.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	127	100.0	352	1	WN3A_MOUSE	P27467 mus musculus
2	119	93.7	352	1	WN3A_XENLA	P31285 xenopus lae
3	119	93.7	376	2	Q9PWH1	Q9pwh1 gallus gall
4	118	92.9	352	1	WN3A_HUMAN	P56704 homo sapien
5	118	92.9	365	2	Q61YD9	P61y9d brachydanio
6	117	92.1	329	2	Q8BLT2	Q8blt2 mus musculus
7	117	92.1	355	1	WN3A_MOUSE	P56703 homo sapien
8	117	92.1	355	1	WN3A_MOUSE	P17553 mus musculus
9	114	89.8	395	2	Q8WS76	Q8ws76 branchioero
10	103	81.1	359	1	WN3B_MOUSE	P22726 mus musculus
11	101	79.5	370	2	Q8WS75	Q8ws75 branchioero
12	100	78.7	360	1	WN3C_XENLA	P33945 xenopus lae
13	100	78.7	360	2	Q6DII0	Q6dii0 xenopus tro
14	100	78.7	360	2	Q7T0M2	Q7t0m2 xenopus lae
15	99	78.0	359	1	WN3B_HUMAN	Q9h1j7 homo sapien
16	97	76.4	359	1	WN3A_AMEME	Q06442 ambystoma m
17	97	76.4	359	1	WN3A_PLEWA	O13267 pleurodeles
18	97	76.4	360	2	Q8BM17	Q8bm17 mus musculus
19	97	76.4	363	1	WN3B_BRARE	Q20050 brachydanio
20	97	76.4	365	1	WN3A_HUMAN	P41221 homo sapien
21	97	76.4	371	1	WN3B_ORYLA	O41222 oryzias lat
22	97	76.4	379	1	WN3A_MOUSE	P22725 mus musculus
23	97	76.4	379	1	WN3A_RAT	Q9qkx7 rattus norv
24	97	76.4	380	1	WN3A_XENLA	P31286 xenopus lae
25	97	76.4	380	2	Q6P278	Q6p278 homo sapien
26	97	76.4	380	2	Q8BMF9	Q8bmf9 mus musculus
27	97	76.4	380	2	Q8VCV6	Q8vcv6 mus musculus
28	97	76.4	381	2	Q6DK41	Q6dk41 homo sapien
29	97	76.4	385	2	Q9YGX6	Q9ygx6 gallus gall
30	95	74.8	317	2	Q7QOK5	Q7qok5 anopheles g
31	94	74.0	352	1	WN3A_MOUSE	P28465 drosophila

32	94	74.0	357	1	WN3B_AMEME	Q06443 ambystoma m
33	92	72.4	371	2	Q8T8A8	Q8t8a8 halocynthia
34	91	71.7	358	2	Q9IAU3	Q9iau3 brachydanio
35	90	70.9	363	1	WN3T_HALRO	O15978 halocynthia
36	89	70.1	171	2	Q8IUU0	Q8iuu0 raja erinac
37	89	70.1	415	2	Q8IPII	Q8ipil drosophila
38	89	70.1	468	1	WN3T_DROME	P28466 drosophila
39	89	70.1	1004	1	WN3T5_DROME	P28466 drosophila
40	88	69.3	125	2	Q704Z7	Q704z7 meriones un
41	88	69.3	263	2	Q8HXD3	Q8hxd3 macaca fasc
42	88	69.3	311	2	Q9QXK5	Q9qkx5 rattus norv
43	88	69.3	330	2	Q8MZJ3	Q8mzj3 myrmica ame
44	88	69.3	337	2	Q8MZJ4	Q8mzj4 crematogast
45	88	69.3	381	2	Q8T395	Q8t395 cupiennius

ALIGNMENTS

RESULT 1
ID WN3A_MOUSE STANDARD; PRT; 352 AA.
AC P27467;
DT 01-AUG-1992 (Rel. 23, Created)
DT 01-AUG-1992 (Rel. 23, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-3a protein precursor.
GN Name=Wnt3a; Synonyms=Wnt-3a;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A..
RC TISSUE=Embryo;
RX MEDLINE=91160971; PubMed=2001840;
RA Roelink H., Nusse R.;
RT "Expression of two members of the wnt family during mouse development
-- restricted temporal and spatial patterns in the developing neural
tube.";
RL Genes Dev. 5:381-388(1991).
RN [2]
RP PALMITOYLATION.
RX PubMed=12717451; DOI=10.1038/nature01611;
RA Willert K., Brown J.D., Danenberg E., Duncan A.W., Weissman I.L.,
Reya T., Yates J.R., Nusse R.;
RT "Wnt proteins are lipid-modified and can act as stem cell growth
factors.";
RL Nature 423:448-452(2003).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
transmembrane receptors. Wnt-3 and Wnt-3a play distinct roles in
cell-cell signaling during morphogenesis of the developing neural
tube.
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
extracellular matrix.
CC -!- TISSUE SPECIFICITY: Dorsal portion of the neural tube (developing
roof plate), and mesenchyme tissue surrounding the umbilical
veins.
CC -!- SIMILARITY: Belongs to the Wnt family.

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CC EMBL; X56842; CAA40173.1; -.
CC PIR; A39532; A39532.
CC MGD; MGI:98956; Wnt3a.
CC GO; GO:0030097; P:hemoipoiesis; IDA.
CC GO; GO:0045595; P:regulation of cell differentiation; IDA.

EMBL; L07538; AAA50009.1; -.
PIR; A48828; A48828.
InterPro; IPR005817; Wnt.
InterPro; IPR009141; Wnt3.
InterPro; IPR005816; Wnt grthfactor.


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-----
DR EMBL; AB060284; BAB61052.1; --
DR EMBL; AK056278; BAB71136.1; --
DR Genew; HGNC:15983; WNT3A.
DR H-InVDB; HIX0001654; --
DR MIM; 606359; --
DR GO; GO:0005576; C:extracellular; NAS.
DR GO; GO:0005201; F:extracellular matrix structural constituent; NAS.
DR GO; GO:0007267; P:cell-cell signaling; NAS.
DR GO; GO:0009653; P:morphogenesis; NAS.
DR InterPro; IPR005817; Wnt3.
DR InterPro; IPR009141; Wnt3.
DR InterPro; IPR005816; Wnt3_growthfactor.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01843; WNT3PROTEIN.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Extracellular matrix; Glycoprotein;
KW Lipoprotein; Palmitate; Signal; Wnt signaling pathway.
FT SIGNAL 1 24 Potential.
FT CHAIN 25 352 Wnt-3a protein.
FT LIPID 77 77 S-palmitoyl cysteine (By similarity).
FT CARBOHYD 87 87 N-linked (GlcNAc...) (potential).
FT CARBOHYD 298 298 N-linked (GlcNAc...) (potential).
SQ SEQUENCE 352 AA; 39364 MW; A317BD6D4A73920B CRC64;

Query Match 92.9%; Score 118; DB 1; Length 352;
Best Local Similarity 95.2%; Pred. NO. 1.7e-10;
Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 KAGIOECOHQFRGRRWNCVV 21
DB 71 KIGIOECOHQFRGRRWNCVV 91

RESULT 5
Q5IYD9 PRELIMINARY; PRT; 365 AA.
AC Q6IYD9;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Wnt3a.
GN Name=wnt3 1; Synonyms=wnt3a;
OS Brachydanio rerio (Zebrafish) (Danio rerio).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Danio.
OX NCBI_TaxID=7955;
RN [1]
RP SEQUENCE FROM N.A.
RX PubMed=15147762;
RA Buckles G.R., Thorpe C.J., Ramel M.C., Lekven A.C.;
RT "Combinatorial Wnt control of zebrafish midbrain-hindbrain boundary
RT formation.";
RL Mech. Dev. 121:437-447(2004).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AY613787; AAT38336.1; --
DR ZFIN; ZDB-GENE-001106-1; wnt3 1.
DR GO; GO:0005576; C:extracellular; IEA.

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DR GO: 0004871; P: signal transducer activity; IEA.
 DR GO: 0007275; P: development; IEA.
 DR GO: 0007223; P: frizzled-2 signaling pathway; IEA.
 DR InterPro: IPR005817; Wnt.
 DR InterPro: IPR009141; Wnt3.
 DR InterPro: IPR005816; Wnt3_gthfactor.
 DR Pfam: PF00110; wnt; 1.
 DR PRINTS: PR01843; WNT3PROTEIN.
 DR PRINTS: PR01349; WNTPROTEIN.
 DR SMART: SM00097; WNT1; 1.
 DR PROSITE: PS00246; WNT1; 1.
 KW Developmental protein; Wnt signaling pathway.
 SQ SEQUENCE 365 AA; 41483 MW; B2BD3741953359D6 CRC64;
 Query Match 92.9%; Score 118; DB 2; Length 365;
 Best Local Similarity 86.4%; Pred. No. 1.7e-10;
 Matches 19; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 QY 1 KAGIQEQHQFGRGRWNCCTTVS 22
 DB 72 KIGIQEQHQFGRGRWNCCTTIN 93
 RESULT 6
 Q8BLT2 PRELIMINARY; PRT; 329 AA.
 AC Q8BLT2;
 DT 01-WAR-2003 (TREMBLrel. 23, Created)
 DT 01-WAR-2003 (TREMBLrel. 23, Last sequence update)
 DT 01-WAR-2004 (TREMBLrel. 26, Last annotation update)
 DE Mus musculus 7 days neonate cerebellum cDNA, RIKEN full-length
 DE enriched library, clone: A730047N19 product: WNT-3 PROTO-ONCOGENE
 DE PROTEIN homolog (fragment).
 GN Name=Wnt3;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
 RX MEDLINE=9279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
 RA Carninci P., Hayashizaki Y.;
 RT "High-efficiency full-length cDNA cloning.";
 RL Meth. Enzymol. 303:19-44(1999).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
 RX MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
 RA RIKEN FANTOM Consortium;
 RT "Functional annotation of a full-length mouse cDNA collection.";
 RL Nature 409:685-690(2001).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
 RX MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
 RA Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
 RA Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
 RT "Normalization and subtraction of cap-trapper-selected cDNAs to
 RT prepare full-length cDNA libraries for rapid discovery of new genes.";
 RL Genome Res. 10:1617-1630(2000).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
 RX MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

RA Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
 RA Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
 RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
 RA Yamamoto K., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
 RA Fujiwara S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
 RA Yoneda Y., Iehikawa T., Ozawa K., Tanaka T., Matsura S., Kawai J.,
 RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
 RT "RIKEN integrated sequence analysis (RISA) system-384-format
 RT sequencing pipeline with 384 multicapillary sequencer.";
 RL Genome Res. 10:1757-1771(2000).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Cerebellum;
 RA Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
 RA Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
 RA Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
 RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
 RA Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
 RA Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
 RA Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
 RA Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
 RA Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
 RA Tagawa A., Takahashi F., Takaku-Akaira S., Takeda Y., Tanaka I.,
 RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
 RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors (By similarity).
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix (By similarity).
 CC -!- SIMILARITY: Belongs to the Wnt family.
 DR EMBL; AK043014; BAC31433.1; -.
 DR MGD; MG1:98955; Wnt3.
 DR GO: 0005615; C: extracellular space; TAS.
 DR GO: 0005515; P: protein binding; IPI.
 DR GO: 0005102; F: receptor binding; TAS.
 DR GO: 0007267; P: cell-cell signaling; TAS.
 DR GO: 0009887; P: organogenesis; TAS.
 DR GO: 0007165; P: signal transduction; TAS.
 DR InterPro: IPR005817; Wnt.
 DR InterPro: IPR009141; Wnt3.
 DR InterPro: IPR005816; Wnt3_gthfactor.
 DR Pfam: PF00110; wnt; 1.
 DR PRINTS: PR01843; WNT3PROTEIN.
 DR PRINTS: PR01349; WNTPROTEIN.
 DR SMART: SM00097; WNT1; 1.
 DR PROSITE: PS00246; WNT1; 1.
 KW Developmental protein; Wnt signaling pathway.
 FT NON TER 1
 SQ SEQUENCE 329 AA; 36768 MW; BACE7B7848F5291B CRC64;
 Query Match 92.1%; Score 117; DB 2; Length 329;
 Best Local Similarity 90.5%; Pred. No. 2.3e-10;
 Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 QY 1 KAGIQEQHQFGRGRWNCCTTV 21
 DB 48 KIGIQEQHQFGRGRWNCCTTI 68
 RESULT 7
 WNT3_HUMAN
 ID WNT3_HUMAN STANDARD; PRT; 355 AA.
 AC P56703; Q9H1J9;
 DT 15-JUL-1999 (Rel. 38, Created)
 DT 16-OCT-2001 (Rel. 40, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Wnt-3 proto-oncogene protein precursor.
 GN Name=WNT3; Synonyms=INT4;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]


```

DT 01-MAR-2002 (TREMELrel. 20, Last sequence update)
DE 01-MAR-2004 (TREMELrel. 26, Last annotation update)
DE Secreted glycoprotein Wnt3.
GN Name=Wnt3;
OS Branchiostoma floridae (Florida lancelet) (Amphioxus).
OC Eukaryota; Metazoa; Chordata; Cephalochordata; Branchiostomidae;
OC Branchiostoma.
OX NCBI_TaxID=7739;
RN [1]
RN SEQUENCE FROM N.A.
RP MEDLINE=21643909; PubMed=11784062; DOI=10.1006/dbio.2001.0460;
RX Schubert M., Holland L.Z., Stokes M.D., Holland N.D.;
RA "Three amphioxus Wnt genes (AmphiWnt3, AmphiWnt5, and AmphiWnt6)
RT associated with the tail bud: the evolution of somitogenesis in
RL chordates.";
RL Dev. Biol. 240:262-273(2001).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AF361013; AAL37555.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01843; WNT3PROTEIN.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Wnt signaling pathway.
SQ SEQUENCE 395 AA; 43975 MW; 08F371E4DEA69F CRC64;

Query Match 89.8%; Score 114; DB 2; Length 395;
Best Local Similarity 90.5%; Pred. No. 8.3e-10;
Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 KAGIQEQHQFRRWNCITV 21
DB 87 KLGIRECQHQFRRWNCITV 107

RESULT 10
WNSB_MOUSE STANDARD; PRT; 359 AA.
AC P22726; Q91XF5;
DT 01-AUG-1991 (Rel. 19, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Wnt-5b protein precursor.
GN Name=Wnt5b; Synonyms=Wnt-5b;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RN SEQUENCE FROM N.A.
RP MEDLINE=91122634; PubMed=2279700;
RX Gavin B.J., McMahon J.A., McMahon A.P.;
RA "Expression of multiple novel Wnt-1/int-1-related genes during fetal
RT and adult mouse development.";
RL Genes Dev. 4:2319-2332(1990).
RN [2]
RN SEQUENCE FROM N.A.
RP STRAIN=FVB/N-3; TISSUE=Liver, and Mammary gland;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

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RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raba S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakeley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnarch A., Schein J.B., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RL and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC transmembrane receptors. Probable developmental protein. May be a
CC signaling molecule which affects the development of discrete
CC regions of tissues. Is likely to signal over only few cell
CC diameters.
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix.
CC -!- SIMILARITY: Belongs to the Wnt family.
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CC -----
DR EMBL; M89799; AAA40568.1; ALT INIT.
DR EMBL; BC010775; AAH10775.1; ALT INIT.
DR EMBL; BC051406; AAH51406.1; -.
DR FIRM; E36470; E36470.
DR MGD; MGI:98959; Wnt5b.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR005816; Wnt_grthfactor.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01349; WNTPROTEIN.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
FT SIGNAL 1 17 Potential.
FT CHAIN 18 359 Wnt-5b protein.
FT CARBOHYD 93 93 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 99 99 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 291 291 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 305 305 N-linked (GlcNAc...) (Potential).
SQ SEQUENCE 359 AA; 40343 MW; 308ED393D3020DEB CRC64;

Query Match 81.1%; Score 103; DB 1; Length 359;
Best Local Similarity 81.0%; Pred. No. 4.4e-08;
Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 KAGIQEQHQFRRWNCITV 21
DB 77 KTGIRECQHQFRRWNCITV 97

RESULT 11
Q8WS75 PRELIMINARY; PRT; 370 AA.
AC Q8WS75;
DT 01-MAR-2002 (TREMELrel. 20, Created)
DT 01-MAR-2002 (TREMELrel. 20, Last sequence update)
DT 01-OCT-2003 (TREMELrel. 25, Last annotation update)
DE Secreted glycoprotein Wnt5.
GN Name=Wnt5;
OS Branchiostoma floridae (Florida lancelet) (Amphioxus).
OC Eukaryota; Metazoa; Chordata; Cephalochordata; Branchiostomidae;
OC Branchiostoma.
OX NCBI_TaxID=7739;
RN [1]

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RP SEQUENCE FROM N.A.
RX MEDLINE=21643309; PubMed=11784062; DOI=10.1006/dbio.2001.0460;
RA Schubert M., Holland L.Z., Stokes M.D., Holland N.D.;
RT "Three amphioxus Wnt genes (AmphiWnt3, AmphiWnt5, and AmphiWnt6)
RT associated with the tail bud: the evolution of somitogenesis in
RT chordates.";
RL Dev. Biol. 240:262-273(2001).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AF361014; AAL37556.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR Pfam; PF00110; Wnt; 1.
DR PRINTS; PRO1349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Wnt signaling pathway.
SQ SEQUENCE 370 AA; 41818 MW; 58D4B64EA31976A7 CRC64;

Query Match 79.5%; Score 101; DB 2; Length 370;
Best Local Similarity 80.0%; Pred. No. 9.5e-08;
Matches 16; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 KAGIQCQHQPRGRWNCVT 20
DB : |||:|||||:|||||
85 RQIECQHQPRDRWNCVT 104

RESULT 12
WNSC_XENLA
ID WNSC_XENLA STANDARD; PRT; 360 AA.
AC P33945; Q9128;
DT 01-FEB-1994 (Rel. 28, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-5c protein precursor (XWnt-5c).
GN Name=WNT-5C;
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP SEQUENCE FROM N.A.
RA Koster J.G., Kuiken G.A., Stegeman B., Peterson J., Eizema K.,
RA Stabel L., Dekker E.J., Destre O.H.J.;
RL Submitted (JUN-1993) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE OF 1-27 FROM N.A.
RC TISSUE=Embryo;
RX MEDLINE=94261437; PubMed=8202371;
RA Kuiken G.A., Bertens P.J.A., Peterson-Maduro J., Veenstra G.J.C.,
RA Koster J.G., Destre O.H.J.;
RT "The promoter of the Wnt-5c gene contains octamer and AP-2 motifs
RT functional in Xenopus embryos.";
RL Nucleic Acids Res. 22:1675-1680(1994).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC transmembrane receptors. Probable developmental protein. May be a
CC signaling molecule which affects the development of discrete
CC regions of tissues. Is likely to signal over only few cell
CC diameters.
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix.
CC -!- DEVELOPMENTAL STAGE: Expression in the early gastrula stage
CC onwards.
CC -!- SIMILARITY: Belongs to the Wnt family.
CC -----
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CC -----
DR EMBL; X73510; CAA51916.1; -.
DR EMBL; X76190; CAA53784.1; -.
DR PIR; S34173; S34173.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR005816; Wnt_grthfactor.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PRO1349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Extracellular matrix; Glycoprotein; Signal;
KW Wnt signaling pathway.
FT SIGNAL 1 16
FT CHAIN 17 360
FT CARBOHYD 94 94
FT CARBOHYD 100 100
FT CARBOHYD 292 292
FT CARBOHYD 306 306
FT CONFLICT 15 15
SQ SEQUENCE 360 AA; 40714 MW; 93CBD15D7A92779E CRC64;

Query Match 78.7%; Score 100; DB 1; Length 360;
Best Local Similarity 76.2%; Pred. No. 1.3e-07;
Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 KAGIQCQHQPRGRWNCVT 21
DB : |||:|||||:|||||
78 KTGIXEQHQPRGRWNCSTV 98

RESULT 13
Q6DII0
ID Q6DII0 PRELIMINARY; PRT; 360 AA.
AC Q6DII0;
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DE Wnt5b-prov protein.
GN Name=wnt5b-prov;
OS Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus.
OX NCBI_TaxID=8364;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Embryo;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Klausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausberg R.L., Collins F.S., Wagner L., Shermen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahney J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Scherch A., Schein J.E.,
RA Jones S.J., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";

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RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Embryo;
RA Klein S., Gerhard D.S.; to the EMBL/GenBank/DBJ databases.
RL Submitted (JUN-2004) for members of the frizzled family of seven
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC transmembrane receptors (By similarity).
CC extracellular matrix (By similarity).
CC EMBL; BC075560; AAH75560.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR InterPro; IPR005817; Wnt.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Wnt signaling pathway.
SQ SEQUENCE 360 AA; 40703 MW; A712F42FF085EAB2 CRC64;

Query Match 78.7%; Score 100; DB 2; Length 360;
Best Local Similarity 76.2%; Pred. No. 1.3e-07;
Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 KAGIOECQHQRGRWNCSTV 21
Db |||:||||:||||:|

RESULT 14
ID Q7TOM2 PRELIMINARY; PRT; 360 AA.
AC Q7TOM2;
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Wnt-2-prov protein.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidoidea; Pipidae;
OC Xenopodinae; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Ovary;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan K., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marudina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udell T.B., Toshitoki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Jones S.J., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP SEQUENCE FROM N.A.

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RC TISSUE=Ovary;
RX MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT initiative.";
RL Dev. Dyn. 225:384-391(2002).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Ovary;
RA Klein S., Strausberg R.; to the EMBL/GenBank/DBJ databases.
RL Submitted (AUG-2003) for members of the frizzled family of seven
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
CC EMBL; BC056128; AAH56128.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR InterPro; IPR005817; Wnt.
DR Pfam; PF00110; wnt; 1.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Wnt signaling pathway.
SQ SEQUENCE 360 AA; 40680 MW; 997A1AA2581CDDDB CRC64;

Query Match 78.7%; Score 100; DB 2; Length 360;
Best Local Similarity 76.2%; Pred. No. 1.3e-07;
Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 KAGIOECQHQRGRWNCSTV 21
Db |||:||||:||||:|

RESULT 15
ID WNSB_HUMAN STANDARD; PRT; 359 AA.
AC Q9H1J7; Q96S49; Q9BY04;
DT 16-OCT-2001 (Rel. 40, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-5b protein precursor.
GN Name=WNT5B;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Testa T.T., Mossakowska D.E., Carter P.S., Hu E., Zhu Y.,
RA Kelsell D.P., Murdoch P.R., Herrity N.C., Lewis C.J., Cross D.A.,
RA Culbert A.A., Reith A.D., Barnes M.R.;
RT "Molecular cloning and characterization of six novel human WNT
RT genes.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=21338545; PubMed=11445850;
RA Saich T., Katoh M.;
RT "Molecular cloning and characterization of human WNT5B on chromosome
RT 12p13.3 region.";
RL Int. J. Oncol. 19:347-351(2001).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Muscle;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

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RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.P., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
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RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
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RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalhus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC transmembrane receptors. Probable developmental protein. May be a
CC signaling molecule which affects the development of discrete
CC regions of tissues. Is likely to signal over only few cell
CC diameters (By similarity)
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix.
CC -!- SIMILARITY: Belongs to the Wnt family.
CC -----
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DR EMBL; AY009399; AAC38659.1; -;
DR EMBL; AB060966; BABG2039.1; -;
DR EMBL; BC001749; AAH01749.1; -;
DR Genbank; HGNC:16265; WNT5B.
DR H-InvDB; HIX0010319; -;
DR MIM; 606361; -;
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR005816; Wnt_grtfthfactor.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
FT SIGNAL 1 17
FT CHAIN 18 359 Wnt-5b protein.
FT CARBOHYD 99 99 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 291 291 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 305 305 N-linked (GlcNAc...) (Potential).
FT CONFLICT 73 73 G -> R (in Ref. 1).
FT CONFLICT 88 88 R -> P (in Ref. 1).
FT CONFLICT 93 93 N -> K (in Ref. 1).
FT CONFLICT 134 134 R -> S (in Ref. 1).
FT CONFLICT 224 224 G -> R (in Ref. 1).
FT CONFLICT 227 227 S -> R (in Ref. 1).
SQ SEQUENCE 359 AA; 40323 MW; 6E35EE2B0AF1FD29 CRC64;

Query Match 78.0%; Score 99; DB 1; Length 359;
Best Local Similarity 80.0%; Pred. No. 1.9e-07;
Matches 16; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Oy 1 KAGIOEQHQFRGRWNCST 20
Db 77 KTGIEQEQHQFRGRWNCST 96

Search completed: March 31, 2005, 02:57:03
Job time : 118.5 secs

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OM protein - protein search, using sw model

Run on: March 31, 2005, 02:35:38 ; Search time 124.5 Seconds
(without alignments)
68.343 Million cell updates/sec

Title: US-10-816-720-4

Perfect score: 125

Sequence: 1 REAIRECEKFKFERWNCSSRD 22

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_16Dec04:*

- 1: Genesep1980a:*
- 2: Genesep1990a:*
- 3: Genesep2000a:*
- 4: Genesep2001a:*
- 5: Genesep2002a:*
- 6: Genesep2003a:*
- 7: Genesep2003bs:*
- 8: Genesep2004a:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query %			DB	ID	Description
	Score	Match	Length			
1	78	62.4	372	6	ABU55884	Abu55884 Human WNT
2	78	62.4	372	6	ABU07452	Abu07452 Protein d
3	78	62.4	372	6	AAE34040	Aae34040 WNT-2B pr
4	78	62.4	391	8	ADU08177	Adu08177 Human Wnt
5	78	62.4	397	2	AAR75881	Aar75881 Human Wnt
6	77	61.6	129	6	ABR48501	Abr48501 Human Sol
7	77	61.6	131	6	ABR48495	Abr48495 Human Sol
8	77	61.6	131	6	ABR48494	Abr48494 Human Sol
9	77	61.6	364	8	ABO84723	Abos84723 Mouse can
10	77	61.6	365	3	AY81693	Ay81693 Human Wnt
11	77	61.6	365	4	AB49769	Ab49769 Amyloid-b
12	77	61.6	365	4	AB88439	Ab88439 Human mem
13	77	61.6	365	6	ABU55888	Abu55888 Human WNT
14	77	61.6	365	8	ADU08168	Adu08168 Human Wnt
15	77	61.6	365	8	ADU02230	Ado22230 Human WNT
16	77	61.6	365	8	ABO84724	Abos84724 Human can
17	77	61.6	365	8	ADS11096	Ads11096 Human the
18	76	60.8	214	2	AY06303	Aay06303 Mouse pan
19	74	59.2	314	8	ADU02218	Adu02218 Human WNT
20	72	57.6	381	3	AY94318	Aay94318 Human Wnt
21	72	57.6	400	3	AY94317	Aay94317 Human Wnt
22	72	57.6	417	2	AY28559	Aay28559 Wnt-10a p
23	72	57.6	417	3	AY94319	Aay94319 Murine Wnt
24	72	57.6	417	4	AB95835	Ab95835 Human pro
25	72	57.6	417	8	ADU08173	Adu08173 Human Wnt

26	72	57.6	417	8	ADO22240	Human WNT
27	72	57.6	468	4	ABB61007	Drosophil
28	71	56.8	359	3	AAV57271	Wnt-4AF a
29	71	56.8	359	5	ABG61843	Prostate
30	71	56.8	359	7	ADN3266	Cancer/an
31	71	56.8	359	8	ADO08167	Human Wnt
32	71	56.8	359	8	ADO22228	Human WNT
33	71	56.8	359	8	ABM81330	Tumour-as
34	71	56.8	359	8	ABM81329	Tumour-as
35	71	56.8	1004	4	ABM62321	Drosophil
36	71	56.8	1004	7	ADK11439	Drosophil
37	70	56.0	309	4	ABB71653	Drosophil
38	70	56.0	380	5	AAU85413	Human pro
39	68	54.4	131	2	AAW86277	Blastx ou
40	68	54.4	175	8	ADG71930	Human NOV
41	68	54.4	175	8	ADJ87267	Human G p
42	68	54.4	185	5	ABE90437	Human pol
43	68	54.4	260	5	ABG79687	Tumour in
44	68	54.4	338	8	ADJ34289	Human sec
45	68	54.4	349	4	AAE12983	Murine Wn

ALIGNMENTS

RESULT 1
ABU55884
ID ABU55884 standard; protein; 372 AA.
XX AC ABU55884;

DT 25-MAR-2003 (first entry)

DE Human WNT-2B protein.

XX Notch; Wnt; embryonic stem cell; embryogenesis; human; differentiation;
KW ligand; Parkinson's disease; Huntington's disease; motor neuron disease;
KW heart disease; diabetes; liver disease; cirrhosis; renal disease; AIDS;
KW acquired immunodeficiency syndrome.

XX Homo sapiens.

XX WO200277204-A2.

XX 03-OCT-2002.

XX 25-MAR-2002; 2002WO-GB001195.

XX 23-MAR-2001; 2001GB-00007296.

XX 17-APR-2001; 2001GB-00007299.

XX (AXOR-) AXORDIA LTD.

XX Andrews P, Walsh J, Gokhale P;

XX WPI; 2003-092852/08.

XX N-FSDB; ABX75312.

Modulating the differentiation of embryonic stem cells by providing ligands which bind receptors in the Notch and Wnt pathways, useful for treating diseases such as Parkinson's, Huntington's, heart disease, diabetes and AIDS.

XX Disclosure; Fig 35; 121pp; English.

PS The invention relates to modulating the differentiation of an embryonic stem cell, comprising: (a) providing a culture of embryonic stem cells; (b) providing at least one ligand or its active binding fragment, capable of binding its cognate receptor polypeptide expressed by the embryonic stem cell; (c) forming a culture comprising embryonic stem cells and the ligand; and (d) growing the cell culture. Also included are: (1) Modulating the differentiation of embryonic stem cells, comprising: (a)

XX

177

PD 14-NOV-2002.
 XX 29-APR-2002; 2002WO-CB001946.
 XX 04-MAY-2001; 2001GB-00011004.
 XX (AXOR-) AXORDIA LTD.
 PA Andrews P, Draper J, Walsh J;
 PI WPI; 2003-120579/11.
 DR N-PSDB; AAD52539.
 XX
 PT Identifying biologically active agents comprises cloning transfected
 PT cells into a cell array, exposing the array to an agent to be tested, and
 PT detecting signals generated by a reporter molecule as a result of
 PT exposure to the agent.
 XX
 PS Claim 16; Fig 29; 90pp; English.
 XX
 CC The present invention relates to a novel screening method which enables
 CC the identification of biologically active agents which mediate their
 CC effect through the activation of genes. The method involves providing a
 CC population of cells stably transfected with a nucleic acid encoding a
 CC reporter molecule, cloning the transfected cells into a cell array,
 CC exposing the array to at least one agent to be tested and detecting a
 CC signal generated by the reporter molecule as a result of exposure to the
 CC agent. The method is useful in identifying biologically active agents and
 CC the genes through which the agents act, in screening potential drugs for
 CC their ability to activate certain drug targets in a high-throughput
 CC assay, in identifying relationships between signalling pathways and
 CC specific signals that could be useful in eventually directing the
 CC differentiation of embryonic stem cells and in toxicology assays by
 CC testing for unwanted activation or inhibition of specific signalling
 CC pathways. The present sequence is WNT-2B protein used to illustrate the
 CC method of the invention. Note: This sequence is stated to be encoded by
 CC WNT-16 DNA shown in figure 28 of the specification. However this does not
 CC appear to be the case
 XX
 SQ Sequence 372 AA;
 Query Match 62.4%; Score 78; DB 6; Length 372;
 Best Local Similarity 54.5%; Pred. No. 0.0079;
 Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REAIRECEKFKFERWNCSSRD 22
 DB 82 REWIRECQHFRHWRNCTTLD 103
 RESULT 4
 ID ADO08177 standard; protein; 391 AA.
 XX AC ADO08177;
 XX 15-JUL-2004 (first entry)
 XX Human Wnt-13 peptide sequence.
 DE
 XX cancer; Wingless-type; Wnt; Frizzled receptor; monoclonal antibody;
 KW disheveled; Dvl; proliferation; inhibition; Wnt-1; Wnt-; Frizzled1;
 KW Frizzled2; Frizzled3; Frizzled4; Frizzled5; Frizzled6; Frizzled7;
 KW Frizzled8; Frizzled9; Frizzled10; breast cancer; colorectal cancer;
 KW lung cancer; sarcoma; mesothelioma; cervical cancer; ovarian cancer;
 KW prostate cancer; pancreatic cancer; gastric cancer; oesophageal cancer;
 KW head and neck cancer; hepatocellular carcinoma; melanoma; glioma;
 KW glioblastoma; leukaemia; lymphoma.
 OS Homo sapiens.
 XX WO2004032838-A2.
 PN
 XX

PD 22-APR-2004.
 XX 03-OCT-2003; 2003WO-US031384.
 XX 04-OCT-2002; 2002US-00264825.
 PR 31-JUL-2003; 2003US-0491350P.
 XX (REGC) UNIV CALIFORNIA.
 PA He B, You L, Xu Z, Jablons DM;
 PI WPI; 2004-340786/31.
 XX
 DR Inhibiting the growth of a cancer cell overexpressing a wingless-type
 PT (Wnt) protein by inhibiting binding of the Wnt protein to a Frizzled
 PT receptor, useful for the diagnosing and/or treating cancer.
 XX
 PS Disclosure; SEQ ID NO 27; 74pp; English.
 XX
 CC This sequence may be used in the methods of the invention for inhibiting
 CC the growth of a cancer cell that overexpresses a wingless-type (Wnt)
 CC protein. The method comprises contacting the cell with an agent that
 CC inhibits binding of the Wnt protein to a Frizzled receptor. An anti-Wnt
 CC monoclonal antibody described in the specification, specifically binds to
 CC a Wnt-1 or Wnt-2 peptide given in the specification
 CC that inhibits the proliferation of a cancer cell, comprising contacting
 CC the agent with a disheveled (Dvl) protein, determining Dvl protein
 CC activity or expression, and identifying a compound that inhibits Dvl
 CC protein or activity, thereby identifying an agent that inhibits the
 CC proliferation of a cancer cell. The agent for inhibiting growth of a
 CC cancer cell is an antibody, where the antibody specifically binds to the
 CC Wnt protein that is a Wnt-1 or Wnt-2. The antibody specifically binds a
 CC Frizzled receptor that is a Frizzled1, Frizzled2, Frizzled3, Frizzled4,
 CC Frizzled5, Frizzled6, Frizzled7, Frizzled8, Frizzled9, and Frizzled10
 CC receptor. The methods and compositions of the present invention are
 CC useful for the diagnosis, prevention and/or treatment of diseases or
 CC conditions associated with aberrant expression or activity of the Wnt
 CC protein, such as cancer, preferably a breast cancer, colorectal cancer, a
 CC lung cancer, a sarcoma, a mesothelioma, a cervical cancer, an ovary
 CC cancer, a prostate cancer, a pancreatic cancer, a gastric cancer, an
 CC oesophageal cancer, a head and neck cancer, a hepatocellular carcinoma, a
 CC melanoma, a glioma, a glioblastoma, a leukaemia, or a lymphoma.
 XX
 SQ Sequence 391 AA;
 Query Match 62.4%; Score 78; DB 8; Length 391;
 Best Local Similarity 54.5%; Pred. No. 0.0083;
 Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REAIRECEKFKFERWNCSSRD 22
 DB 101 REWIRECQHFRHWRNCTTLD 122
 RESULT 5
 ID AAR75881 standard; protein; 397 AA.
 XX AC AAR75881;
 XX 19-JAN-1996 (first entry)
 XX Human Wnt-x.
 DE Wnt-x growth factor; oncoprotein; bone cancer; breast cancer.
 KW Homo sapiens.
 XX WO9517416-A1.
 PN 29-JUN-1995.
 XX

PF 19-DEC-1994; 94WO-US014708.
 XX 22-DEC-1993; 93US-00172365.
 XX (MERI) MERCK & CO INC.
 XX Rodan GA, Rutledge SJ, Schmidt A;
 XX WPI; 1995-240606/31.
 DR N-PSDB; AAQ91223.
 XX New isolated Wnt-x growth factor protein - used to identify modulators
 PT for use in the treatment of diseases such as cancers.
 XX Claim 2; Page 35; 43pp; English.
 XX DNA encoding Wnt-x was obtd. using rat calvaria osteoblastic cells. This
 CC DNA was used to design primers to isolate cDNA encoding human Wnt-x from
 CC a giant cell tumor cell library. The isolated cDNA (given in AAQ91223)
 CC encodes human Wnt-x (AAR75881) useful for treating disease states
 CC involving Wnt-x activity e.g. bone cancer and breast cancer
 XX Sequence 397 AA;
 SQ Query Match 62.4%; Score 78; DB 2; Length 397;
 Best Local Similarity 54.5%; Pred. No. 0.0085; 4; Indels 0; Gaps 0;
 Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REAIRECNKFKPERWNCSSRD 22
 DB 101 REWIRECQHQFRRHWRNCTILD 122
 RESULT 6
 ABR48501
 ID ABR48501 standard; protein; 129 AA.
 AC ABR48501;
 AC 13-JUN-2003 (first entry)
 DT Human Soluble activator of Wnt (SAW)-2.
 DE Human; GENSET; therapeutic; therapy.
 KW Homo sapiens.
 OS WO200294864-A2.
 PN 28-NOV-2002.
 PD 06-AUG-2001; 2001WO-IB001715.
 PF 25-MAY-2001; 2001US-0293574P.
 PR 15-JUN-2001; 2001US-0298698P.
 PR 29-JUN-2001; 2001US-0302277P.
 PR 13-JUL-2001; 2001US-0305456P.
 XX (GEST) GENSET.
 XX Bejanin S, Tanaka H;
 XX WPI; 2003-129412/12.
 DR N-PSDB; ACC51108.
 XX New GENSET polynucleotides and polypeptides, useful for preparing a
 PT composition for treating GENSET-related disorders and as reagents in
 PT assays to quantitatively determined levels of GENSET expression in
 PT biological samples.
 XX Claim 2; Page 490; 505pp; English.
 XX The present invention relates to novel human GENSET coding sequences
 CC (ACC51060-ACC51115) and proteins (ABR48453-ABR48508). The GENSET
 CC sequences are useful for preparing a composition for treating GENSET-
 CC related disorders. They can also be used as markers for tissues in which
 CC the corresponding protein is preferentially expressed, as molecular
 CC weight markers on Southern gels, as chromosome markers or tags to
 CC identify chromosomes, and as reagents in assays to quantitatively
 CC determined levels of GENSET expression in biological samples
 XX Sequence 129 AA;
 SQ Query Match 61.6%; Score 77; DB 6; Length 129;
 Best Local Similarity 60.0%; Pred. No. 0.0038; 4; Indels 0; Gaps 0;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REAIRECNKFKPERWNCSS 20
 DB 70 RLGVRECQFQFRFRWNCSS 89
 RESULT 7
 ABR48495
 ID ABR48495 standard; protein; 131 AA.
 AC ABR48495;
 AC 13-JUN-2003 (first entry)
 DT Human Soluble activator of Wnt (SAW)-1 #2.
 DE Human; GENSET; therapeutic; therapy.
 KW Homo sapiens.
 OS WO200294864-A2.
 PN 28-NOV-2002.
 PD 06-AUG-2001; 2001WO-IB001715.
 PF 25-MAY-2001; 2001US-0293574P.
 PR 15-JUN-2001; 2001US-0298698P.
 PR 29-JUN-2001; 2001US-0302277P.
 PR 13-JUL-2001; 2001US-0305456P.
 XX (GEST) GENSET.
 XX Bejanin S, Tanaka H;
 XX WPI; 2003-129412/12.
 DR N-PSDB; ACC51102.
 XX New GENSET polynucleotides and polypeptides, useful for preparing a
 PT composition for treating GENSET-related disorders and as reagents in
 PT assays to quantitatively determined levels of GENSET expression in
 PT biological samples.
 XX Claim 2; Page 479; 505pp; English.
 XX The present invention relates to novel human GENSET coding sequences
 CC (ACC51060-ACC51115) and proteins (ABR48453-ABR48508). The GENSET
 CC sequences are useful for preparing a composition for treating GENSET-
 CC related disorders. They can also be used as markers for tissues in which
 CC the corresponding protein is preferentially expressed, as molecular
 CC weight markers on Southern gels, as chromosome markers or tags to
 CC identify chromosomes, and as reagents in assays to quantitatively
 CC determined levels of GENSET expression in biological samples
 XX Sequence 131 AA;
 SQ Query Match 61.6%; Score 77; DB 6; Length 131;
 Best Local Similarity 60.0%; Pred. No. 0.0039; 4; Indels 0; Gaps 0;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECNKFKFERWNCSS 20
 Db :|||: :|||
 70 RLGVRECQFQFRFRWNCSS 89

RESULT 8
 ABR48494
 ID ABR48494 standard; protein; 131 AA.
 AC ABR48494;
 XX
 DT 13-JUN-2003 (first entry)
 XX
 DE Human Soluble activator of Wnt (SAW)-1 #1.
 XX
 KW Human; GENSET; therapeutic; therapy.
 XX
 OS Homo sapiens.
 XX
 PN WO200294864-A2.
 XX
 PD 28-NOV-2002.
 XX
 PF 06-AUG-2001; 2001WO-IB001715.
 XX
 PR 25-MAY-2001; 2001US-0293574P.
 PR 15-JUN-2001; 2001US-0298698P.
 PR 29-JUN-2001; 2001US-0302277P.
 PR 13-JUL-2001; 2001US-0305456P.
 XX
 PA (GENSET) GENSET.
 XX
 PI Bejanin S, Tanaka H;
 XX
 DR WPI; 2003-129412/12.
 DR N-PSDB; ACC51101.
 XX
 PT New GENSET polynucleotides and polypeptides, useful for preparing a
 PT composition for treating GENSET-related disorders and as reagents in
 PT assays to quantitatively determined levels of GENSET expression in
 PT biological samples.
 XX
 PS Claim 2; Page 477; 505pp; English.
 XX
 CC The present invention relates to novel human GENSET coding sequences
 CC (ACC51060-ACC51115) and proteins (ABR48453-ABR48508). The GENSET
 CC sequences are useful for preparing a composition for treating GENSET-
 CC related disorders. They can also be used as markers for tissues in which
 CC the corresponding protein is preferentially expressed, as molecular
 CC weight markers on Southern gels, as chromosome markers or tags to
 CC identify chromosomes, and as reagents in assays to quantitatively
 CC determined levels of GENSET expression in biological samples
 XX
 SQ Sequence 131 AA;
 Query Match 61.6%; Score 77; DB 6; Length 131;
 Best Local Similarity 60.0%; Pred. No. 0.0039;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECNKFKFERWNCSS 20
 Db :|||: :|||
 70 RLGVRECQFQFRFRWNCSS 89

RESULT 9
 ABO84723
 ID ABO84723 standard; protein; 364 AA.
 AC ABO84723;
 XX
 DT 18-NOV-2004 (first entry)
 XX
 DE Mouse cancer-associated protein MP22-016.1.

XX
 KW Mouse; cancer-associated protein; cytostatic; cancer; leukaemia;
 KW Lymphoma; CAP.
 XX
 OS Mus musculus.
 XX
 PN WO2004074320-A2.
 XX
 PD 02-SEP-2004.
 XX
 PF 17-FEB-2004; 2004WO-US004730.
 XX
 PR 14-FEB-2003; 2003US-00367094.
 PR 14-MAR-2003; 2003US-00388838.
 PR 15-APR-2003; 2003US-00417375.
 PR 13-JUN-2003; 2003US-00461862.
 PR 15-SEP-2003; 2003US-00663431.
 PR 15-DEC-2003; 2003US-00737318.
 XX
 PA (SAGR-) SAGRES DISCOVERY INC.
 XX
 PI Morris DW, Morris DW, Malandro MS;
 XX
 DR WPI; 2004-652914/63.
 DR N-PSDB; ABD33030.
 XX
 PT New isolated cancer-associated polynucleotides and polypeptides useful
 PT for diagnosing, preventing or treating cancers, especially lymphoma and
 PT leukemia, or in screening for agents that modulate cancer.
 XX
 PS disclosure; seqid 819; 310pp; English.
 XX
 CC The invention relates to an isolated nucleic acid comprising at least 10
 CC contiguous nucleotides of any of the 233 polynucleotide sequences given
 CC in the specification, or its complement. The nucleic acids encode cancer-
 CC associated proteins. Also included are an expression vector comprising
 CC the isolated nucleic acid cited above, a host cell comprising the above
 CC recombinant nucleic acid or expression vector, a microarray for detecting
 CC a cancer-associated (CA) nucleic acid comprising at least one probe
 CC comprising at least 10 contiguous nucleotides of any of the above-
 CC mentioned nucleotide sequences, an isolated polypeptide (encoded within
 CC an open reading frame of a CA sequence selected from any of the 95
 CC polynucleotide sequences as mentioned in the specification, or its
 CC complement), an isolated antibody, (or its antigen binding fragment) that
 CC binds to the above polypeptide, a hybridoma that produces the above
 CC monoclonal antibody, a pharmaceutical composition comprising the above
 CC antibody and a pharmaceutical excipient, a kit for detecting cancer
 CC cells comprising the antibody cited above, methods for diagnosing cancer
 CC or for detecting the presence or absence of cancer cells in an
 CC individual, a method for inhibiting growth of cancer cells in an
 CC individual, a method for delivering a therapeutic agent to cancer cells
 CC in an individual, an electronic library comprising the above
 CC polynucleotide or polypeptide (or their fragments), methods of screening
 CC for anticancer activity or for a bioactive agent capable of modulating
 CC the activity of a CA protein (CAP), methods for detecting cancer
 CC associated with expression of a polypeptide in a test cell sample, a
 CC method for treating cancers and a method for inhibiting the expression of
 CC CA gene in a cell. The composition and methods are useful for detecting,
 CC diagnosing, preventing and treating cancers, especially lymphoma and
 CC leukaemia. These may also be used in screening for agents that modulate
 CC cancer. The present sequence is a mouse CAP protein sequence. Note: The
 CC sequence data for this patent did not form part of the printed
 CC specification, but was obtained in electronic format directly from WIPO
 CC at ftp.wipo.int/pub/published_pct_sequences
 XX
 SQ Sequence 364 AA;
 Query Match 61.6%; Score 77; DB 8; Length 364;
 Best Local Similarity 60.0%; Pred. No. 0.011;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECNKFKFERWNCSS 20
 :|||: :|||
 :|||: :|||

```

Db      69 RLGVRECQFQFRFRWNCSS 88

RESULT 10
AAB49769
ID AAB49769 standard; protein; 365 AA.
XX
XX AAB49769;
AC
XX
XX 01-JUN-2000 (first entry)
DT
XX
XX Human Wnt-6 protein sequence.
DE
XX
XX Human; Wnt-6 protein; Wnt-6-related disease; schizophrenia; epilepsy;
KW bipolar disorder; unipolar disorder; Alzheimer's disease; cancer;
KW squamous cell carcinoma; cardiovascular disease; stroke; diagnosis;
KW developmental disorder; lamellar ichthyosis; therapy.
XX
XX Homo sapiens.
OS
XX EP979870-A1.
PN
XX
XX 16-FEB-2000.
PD
XX
XX 27-OCT-1998; 98EP-00203616.
PF
XX
XX 12-AUG-1998; 98GB-00017586.
PR
XX (SMIK ) SMITHKLINE BEECHAM PLC.
PA
XX Barnes MR, Testa TT;
PI
XX WPI; 2000-197087/18.
DR
XX N-PSDB; AAZ91783.
DR
XX
XX Novel polypeptide with Wnt-6 homology and its corresponding
PT polynucleotide, useful for treating neurological, cardiovascular and
PT developmental disorders.
PT
XX
XX Claim 3; Page 14-15; 20pp; English.
PS
XX
XX This sequence represents the human Wnt-6 protein of the invention. The
CC polynucleotides, polypeptides, agonists and antagonists are useful for
CC treating Wnt-6-related diseases, e.g. schizophrenia, bipolar and unipolar
CC disorder, Alzheimer's disease, epilepsy, cancer (particularly squamous
CC cell carcinoma), cardiovascular disease, stroke, and developmental
CC disorders (including lamellar ichthyosis). They can also be used for
CC diagnosing (susceptibility to) diseases related to the expression of wnt-
CC 6 by determining the presence of a mutation in the sequence encoding wnt-
CC 6
XX
XX SQ Sequence 365 AA;

Query Match 61.6%; Score 77; DB 3; Length 365;
Best Local Similarity 60.0%; Pred. NO. 0.011;
Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKFKFRWNCSS 20
| :|||: :|:|
DB 70 RLGVRECQFQFRFRWNCSS 89

RESULT 11
AAB49769
ID AAB49769 standard; protein; 365 AA.
XX
XX AAB49769;
AC
XX
XX 20-APR-2001 (first entry)
DT
XX
XX Amyloid-beta protein agglutination regulating factor SEQ ID 6.
DE
XX Human; amyloid-beta protein; agglutination regulatory factor;
KW

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```

KW Alzheimer's disease.
XX
XX Homo sapiens.
OS
XX WO200104299-A1.
FN
XX 18-JAN-2001.
PD
XX
XX 06-JUL-2000; 2000WO-JP004515.
PF
XX
XX 08-JUL-1999; 99JP-00194179.
PR
XX 18-OCT-1999; 99US-0159586P.
PR
XX (HELI-) HELIX RES INST.
PA
XX Ota T, Isogai T, Nishikawa T, Kawai Y, Yamazaki M, Satoh S;
PI Arakawa H, Morita M;
PI
XX WPI; 2001-138347/14.
DR
XX N-PSDB; AAF29359.
DR
XX
XX Polynucleotide encoding Amyloid-beta protein agglutination-controlling
PT factor, useful for inhibiting or promoting agglutination or sedimentation
PT of amyloid-beta protein and in diagnosis and screening drugs for
PT Alzheimer's disease.
XX
XX Claim 1; Page 51-52; 72pp; Japanese.
PS
XX
XX This invention relates to polynucleotides AAF29357 - AAF29361 which
CC encode proteins AAB49767 - AAB49771. The proteins inhibit or promote the
CC agglutination of amyloid beta protein. The protein and polynucleotide
CC sequences are useful in the diagnosis of Alzheimer's disease. They are
CC also useful for screening drugs which are useful for treating Alzheimer's
CC disease
XX
XX SQ Sequence 365 AA;

Query Match 61.6%; Score 77; DB 4; Length 365;
Best Local Similarity 60.0%; Pred. NO. 0.011;
Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKFKFRWNCSS 20
| :|||: :|:|
DB 70 RLGVRECQFQFRFRWNCSS 89

RESULT 12
AAB88439
ID AAB88439 standard; protein; 365 AA.
XX
XX AAB88439;
AC
XX
XX 23-MAY-2001 (first entry)
DT
XX
XX Human membrane or secretory protein clone PSEC0220.
DE
XX
XX Human; secretory protein; membrane protein; vaccine; gene therapy;
KW rheumatoid arthritis; diabetes.
XX
XX Homo sapiens.
OS
XX EP1067182-A2.
PN
XX
XX 10-JAN-2001.
PD
XX
XX 07-JUL-2000; 2000EP-00114090.
PF
XX
XX 08-JUL-1999; 99JP-00194179.
PR
XX 11-JAN-2000; 2000JP-00118775.
PR
XX 02-MAY-2000; 2000JP-00183766.
PR
XX (HELI-) HELIX RES INST.
PA
XX
XX

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PI Ota T, Isogai T, Nishikawa T, Kawai Y, Sugiyama T, Hayashi K;
 DR WPI; 2001-093989/11.
 DR N-PSDB; AAF93986.
 XX
 PT Nucleic acids encoding secretory proteins/membrane proteins, useful in
 PT gene therapy or as candidate target molecules in drug development.
 XX
 PS Claim 1; SEQ ID NO 246; 609pp + Sequence Listing; English.
 XX
 CC This invention relates to nucleic acid sequences AAF93744 - AAF93916
 CC which encode human secretory or membrane proteins represented by AAB88317
 CC - AAB88419. Included in the invention are primers AAF93917 - AAF94295 and
 CC AAF62232 - AAF62235 which are used to isolate the cDNA sequences of the
 CC invention. The invention also includes methods for the production of
 CC antibodies directed against the proteins, and cDNA sequences, which can
 CC be used in vaccines. The polynucleotide sequences can be used in gene
 CC therapy. The polynucleotide sequences and the proteins they encode may be
 CC used in the prevention, treatment and diagnosis of diseases associated
 CC with inappropriate secretory protein/membrane protein expression. The
 CC nucleic acids and complementary sequences may also be used as DNA probes
 CC in diagnostic assays (e.g. polymerase chain reactions (PCR)) to detect
 CC and quantitate the presence of similar nucleic acid sequences in samples.
 CC They may also be used to study the expression and function of secretory
 CC proteins/membrane polypeptides and their role in metabolism. The
 CC polypeptides may be used as antigens in the production of antibodies
 CC against them and in assays to identify modulators (agonists and
 CC antagonists) of expression and activity. The antibodies and antagonists
 CC may also be used as therapeutic agents to down regulate expression and
 CC activity. The antibodies may also be used as diagnostic agents for
 CC detecting the presence of the polypeptides in samples (e.g. by enzyme
 CC linked immunosorbent assay (ELISA). Examples of diseases which may be
 CC treated include rheumatoid arthritis and diabetes
 XX
 SQ Sequence 365 AA;
 Query Match 61.6%; Score 77; DB 4; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.011;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REATRECENKFKFRWNCSS 20
 Db 70 RLGVRECQFQFRFRWNCSS 89
 RESULT 13
 ABUS5888
 ID ABUS5888 standard; protein; 365 AA.
 XX
 AC ABUS5888;
 XX
 DT 25-MAR-2003 (first entry)
 XX
 DE Human WNT-6 protein.
 XX
 KW Notch; Wnt; embryonic stem cell; embryogenesis; human; differentiation;
 KW ligand; Parkinson's disease; Huntington's disease; motor neuron disease;
 KW heart disease; diabetes; liver disease; cirrhosis; renal disease; AIDS;
 KW acquired immunodeficiency syndrome.
 XX
 OS Homo sapiens.
 XX
 PN WO200277204-A2.
 XX
 PD 03-OCT-2002.
 XX
 PF 25-MAR-2002; 2002WO-GB001195.
 XX
 PR 23-MAR-2001; 2001GB-00007296.
 PR 23-MAR-2001; 2001GB-00007299.
 PR 17-APR-2001; 2001GB-00009346.
 XX
 PA (AXOR-) AXORDIA LTD.

XX Andrews P, Walsh J, Gokhale P;
 PI WPI; 2003-092852/08.
 DR N-PSDB; ABX75316.
 XX
 PT Modulating the differentiation of embryonic stem cells by providing
 PT ligands which bind receptors in the Notch and Wnt pathways, useful for
 PT treating diseases such as Parkinson's, Huntington's, heart disease,
 PT diabetes and AIDS.
 XX
 PS Disclosure; Fig 43; 121pp; English.
 XX
 CC The invention relates to modulating the differentiation of an embryonic
 CC stem cell, comprising: (a) providing a culture of embryonic stem cells;
 CC (b) providing at least one ligand or its active binding fragment, capable
 CC of binding its cognate receptor polypeptide expressed by the embryonic
 CC stem cell; (c) forming a culture comprising embryonic stem cells and the
 CC ligand; and (d) growing the cell culture. Also included are: (i)
 CC Modulating the differentiation of embryonic stem cells, comprising: (a)
 CC providing a cell transfected with a nucleic acid molecule selected from:
 CC (i) any of 9 fully defined Wnt nucleic acid sequences; (ii) a nucleic
 CC acid molecule that hybridises to the nucleic acid in (i), and which
 CC encodes a ligand capable of modulating embryonic stem cell
 CC differentiation, or capable of binding a Wnt receptor; or (iii) nucleic
 CC acid molecules which are degenerate as a result of the genetic code to
 CC the sequences of (i) or (ii); (b) forming a culture comprising the cell
 CC identified in (a) with an embryonic stem cell; and (c) growing the
 CC culture for the maintenance and/or differentiation of the embryonic stem
 CC cell; (2) Inhibiting the differentiation of embryonic stem cells,
 CC comprising: (a) providing at least one polypeptide or its active
 CC fragment, that are inhibitors of the Wnt signalling pathway; (b) forming
 CC a culture comprising the cell identified in (a) with an embryonic stem
 CC cell; and (c) growing the culture for the maintenance of embryonic stem
 CC cells in an undifferentiated state; or (3) Inhibiting the differentiation
 CC of embryonic stem cells, comprising: (a) providing a cell transfected
 CC with a nucleic acid molecule selected from: (i) a molecule encoding a Wnt
 CC inhibitory polypeptide; (ii) a molecule which hybridises to the molecule
 CC of (i) and encodes a polypeptide capable of inhibiting Wnt signalling;
 CC and (iii) nucleic acid molecules which are degenerate as a result of the
 CC genetic code to the sequences of (i) or (ii); (b) forming a culture
 CC comprising the cell identified in (a) with an embryonic stem cell; and
 CC (c) growing the culture for the maintenance of embryonic stem cells in an
 CC undifferentiated state; and (4) A cell, therapeutic cell or cell culture
 CC obtainable by any of the methods cited above. The therapeutic cell of the
 CC present invention is useful in the treatment of an animal, preferably a
 CC human, comprising administering a cell composition comprising embryonic
 CC stem cells which have been induced to differentiate into at least one
 CC cell-type. The cell is also useful for the manufacture of a composition
 CC for use in treatment of diseases such as Parkinson's disease,
 CC Huntington's disease, motor neuron disease, heart disease, diabetes,
 CC liver disease (e.g. cirrhosis), renal disease and AIDS (acquired
 CC immunodeficiency syndrome). The present sequence is represents a Wnt or
 CC Notch pathway protein (i.e. a ligand for the method of the invention)
 XX
 SQ Sequence 365 AA;
 Query Match 61.6%; Score 77; DB 6; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.011;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REATRECENKFKFRWNCSS 20
 Db 70 RLGVRECQFQFRFRWNCSS 89
 RESULT 14
 ADO08168
 ID ADO08168 standard; protein; 365 AA.
 XX
 AC ADO08168;
 XX
 DT 15-JUL-2004 (first entry)

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 31, 2005, 02:42:39 ; Search time 27 Seconds
(without alignments)
78.399 Million cell updates/sec

Title: US-10-816-720-4

Perfect score: 125

Sequence: 1 REAIRECEKFKFERWNCSSRD 22

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR_79:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	125	100.0	398	2 T26284	hypothetical prote
2	78	62.4	372	2 T09612	secreted glycoprot
3	77	61.6	364	2 F36470	wnt-6 protein - mo
4	77	61.6	365	2 JCT694	soluble-type glyco
5	74	59.2	360	2 S34173	wnt-5c protein - A
6	72	57.6	372	2 E36470	wnt-5b protein - m
7	72	57.6	417	2 JCT693	soluble-type glyco
8	72	57.6	417	2 B59392	wnt10a protein pro
9	72	57.6	468	2 A29650	wingless (wg) prot
10	72	57.6	469	1 TVPFT1	transforming prote
11	71	56.8	1004	2 A48821	wnt-5 protein - fr
12	70	56.0	442	2 I50110	wnt10a protein - z
13	69	55.2	357	2 B56549	cell-cell signalin
14	68	54.4	349	2 H36470	wnt-7b protein - m
15	68	54.4	351	2 JCT451	Wnt-4 protein pre
16	68	54.4	351	2 C36470	wnt-4 protein - mo
17	68	54.4	352	2 A49146	developmental regu
18	68	54.4	359	2 A56549	cell-cell signalin
19	68	54.4	365	2 A48914	proto-oncogene Wnt
20	68	54.4	379	2 D36470	wnt-5a protein - m
21	65	52.0	360	2 T26037	hypothetical prote
22	65	52.0	360	2 S32695	wnt-2 protein - Ca
23	64	51.2	333	2 A47536	gene WNT3 protein
24	64	51.2	355	2 A35503	wnt-3 protein - mo
25	63	50.4	354	2 JCT452	wnt-11 protein pre
26	62	49.6	134	2 I50729	gene Wnt-1 protein
27	62	49.6	352	2 A39532	wnt-3A protein - m
28	62	49.6	389	2 I49263	potential oncogene
29	62	49.6	389	2 A59392	wnt10b protein pre

30	61	48.8	348	2 A57234	lin-44 protein pre
31	61	48.8	352	2 A48828	wingless homolog X
32	61	48.8	361	2 I50505	gene wnt8 protein
33	61	48.8	370	1 TVMVT1	transforming prote
34	61	48.8	370	1 TVHUT1	transforming prote
35	61	48.8	370	1 TWST1	transforming prote
36	60	48.0	387	2 S18771	developmental regu
37	60	48.0	360	2 S00834	int-1-like protein
38	60	48.0	360	2 B36470	wnt-2 protein - mo
39	59	47.2	352	2 S24559	wnt-2 protein - fr
40	59	47.2	371	1 TVXLT1	transforming prote
41	59	47.2	428	2 I51680	wnt-8b - African
42	58	46.4	370	2 S15013	wnt-1 protein - ze
43	57	45.6	348	2 T10502	wnt-7a protein - I
44	57	45.6	369	2 S13721	wnt-1 protein prec
45	56	44.8	354	2 S34378	wnt-11 protein - m

ALIGNMENTS

RESULT 1

T26284

hypothetical protein W08D2.1 - Caenorhabditis elegans

C:Species: Caenorhabditis elegans

C>Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 21-Jan-2000

C:Accession: T26284

R:Swinsburne, J.; Ainscough, R.

submitted to the EMBL Data Library, March 1996

A:Reference number: Z20188

A:Accession: T26284

A>Status: preliminary; translated from GB/EMBL/DBDJ

A:Molecule type: DNA

A:Residues: 1-398 <WIL>

A:Cross-references: EMBL:Z70271; PIDN:CAA94237.1; GSPDB:GN000022; CESP:W08D2.1

A:Experimental source: clone W08D2

C:Genetics:

A:Gene: CESP:W08D2.1

A:Map position: 4

A:Introns: 36/2; 80/3; 107/2; 135/1; 181/3; 238/3; 291/3; 334/1; 367/3

C:Superfamily: int-1 transforming protein

Query Match 100.0%; Score 125; DB 2; Length 398;
Best Local Similarity 100.0%; Pred. No. 5.6e-11;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 REAIRECEKFKFERWNCSSRD 22

Db 93 REAIRECEKFKFERWNCSSRD 114

RESULT 2

T09612

secreted glycoprotein Wnt-13 - human

C:Species: Homo sapiens (man)

C>Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 21-Jul-2000

C:Accession: T09612

R:Katoch, M.; Hirai, M.; Sugimura, T.; Terada, M.

Oncogene 13, 873-876, 1996

A:Title: Cloning, expression and chromosomal localization of Wnt-13, a novel member of t

A:Reference number: Z16773; MUID:96359637; PMID:8761309

A:Accession: T09612

A>Status: preliminary; translated from GB/EMBL/DBDJ

A:Molecule type: mRNA

A:Residues: 1-372 <KAT>

A:Cross-references: EMBL:Z71621; NID:gl524104; PIDN:CAA96283.1; FID:gl524105

C:Genetics:

A:Gene: Wnt-13

A:Map position: 1p13

C:Superfamily: int-1 transforming protein

Query Match 62.4%; Score 78; DB 2; Length 372;
Best Local Similarity 54.5%; Pred. No. 0.00052;

Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKFKFERWNCSSRD 22
 |||||:::|:|||||:
 DB 82 REWIRECQHFRRHWNCTTLD 103

RESULT 3
 F36470

Wnt-6 protein - mouse
 C:Species: Mus musculus (house mouse)
 C:Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
 C:Accession: F36470
 R:Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
 Genes Dev. 4, 2319-2332, 1990
 A:Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult m
 A:Reference number: A36470; MUID:91122634; PMID:2279700
 A:Accession: F36470
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-364 <GAV>
 A:Cross-references: UNIPROT:P22727; GB:M89800; NID:G202407; PIDN:AAA40569.1; PID:G202408
 C:Superfamily: int-1 transforming protein

Query Match 61.6%; Score 77; DB 2; Length 364;
 Best Local Similarity 60.0%; Pred. No. 0.00071;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKFKFERWNCSS 20
 |||||:::|:|||||:
 DB 69 RLGVRECQFQFRFRWNCSS 88

RESULT 4
 JC7694

soluble-type glycoprotein WNT6 - human
 C:Species: Homo sapiens (man)
 C:Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
 C:Accession: JC7694
 R:Kirikoshi, H.; Sekihara, H.; Katoh, M.
 Biochem. Biophys. Res. Commun. 283, 798-805, 2001
 A:Title: WNT10A and WNT6, clustered in human chromosome 2q35 region with head-to-tail ma
 A:Reference number: JC7693; MUID:21248387; PMID:11350055
 A:Accession: JC7694
 A:Molecule type: mRNA
 A:Residues: 1-365 <KIR>
 A:Cross-references: UNIPROT:Q9YGF9; DDBJ:AB059570
 C:Comment: This protein plays key roles in human carcinogenesis through activation of WN
 ly coexpressed in colorectal cancer cell line SW480.
 C:Genetics:
 A:Gene: Wnt6
 A:Map position: 2q35
 C:Superfamily: int-1 transforming protein
 C:Keywords: carcinogenesis; glycoprotein

Query Match 61.6%; Score 77; DB 2; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.00072;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKFKFERWNCSS 20
 |||||:::|:|||||:
 DB 70 RLGVRECQFQFRFRWNCSS 89

RESULT 5
 S34173

wnt-5c protein - African clawed frog
 C:Species: Xenopus laevis (African clawed frog)
 C:Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
 C:Accession: S34173; S45242
 R:Koster, J.G.; Kuiken, G.A.; Stegeman, B.; Peterson, J.; Eizema, K.; Stabel, L.; Dekker
 submitted to the EMBL Data Library, June 1993
 A:Description: Differential Xwnt-5C expression during early development of Xenopus laevi

A:Reference number: S34173
 A:Accession: S34173
 A:Molecule type: mRNA
 A:Residues: 1-360 <KOS>
 A:Cross-references: UNIPROT:P33945; EMBL:X73510; NID:G313267; PIDN:CAA51916.1; PID:G31326
 R:Kuiken, G.A.; Bertens, P.J.A.; Peterson-Maduro, J.; Veenstra, G.J.C.; Koster, J.G.; De
 Nucleic Acids Res. 22, 1675-1680, 1994
 A:Title: The promoter of the Xwnt-5C gene contains octamer and AP-2 motifs functional in
 A:Reference number: S45242; MUID:94261437; PMID:8202371
 A:Accession: S45242
 A:Molecule type: DNA
 A:Residues: 1-28 <KUI>
 C:Superfamily: int-1 transforming protein

Query Match 59.2%; Score 74; DB 2; Length 360;
 Best Local Similarity 50.0%; Pred. No. 0.002;
 Matches 11; Conservative 6; Mismatches 5; Indels 0; Gaps 0;

QY 1 REAIRECNKFKFERWNCSSRD 22
 |||||:::|:|||||:
 DB 78 KTGIRKCOHQFRRHWNCTVD 99

RESULT 6
 E36470

Wnt-5b protein - mouse
 C:Species: Mus musculus (house mouse)
 C:Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
 C:Accession: E36470
 R:Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
 Genes Dev. 4, 2319-2332, 1990
 A:Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult m
 A:Reference number: A36470; MUID:91122634; PMID:2279700
 A:Accession: E36470
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-372 <GAV>
 A:Cross-references: UNIPROT:Q91XF5; GB:M89799; NID:G202405; PIDN:AAA40568.1; PID:G202406
 C:Superfamily: int-1 transforming protein

Query Match 57.6%; Score 72; DB 2; Length 372;
 Best Local Similarity 50.0%; Pred. No. 0.004;
 Matches 11; Conservative 6; Mismatches 5; Indels 0; Gaps 0;

QY 1 REAIRECNKFKFERWNCSSRD 22
 |||||:::|:|||||:
 DB 90 KTGIRKCOHQFRRHWNCTVD 111

RESULT 7
 JC7693

soluble-type glycoprotein WNT10A - human
 C:Species: Homo sapiens (man)
 C:Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
 C:Accession: JC7693
 R:Kirikoshi, H.; Sekihara, H.; Katoh, M.
 Biochem. Biophys. Res. Commun. 283, 798-805, 2001
 A:Title: WNT10A and WNT6, clustered in human chromosome 2q35 region with head-to-tail ma
 A:Reference number: JC7693; MUID:21248387; PMID:11350055
 A:Accession: JC7693
 A:Molecule type: mRNA
 A:Residues: 1-417 <KIR>
 A:Cross-references: UNIPROT:Q9GZT5; DDBJ:AB059569
 C:Comment: This protein plays key roles in human carcinogenesis through activation of WNT
 coexpressed in colorectal cancer cell line SW480.
 C:Genetics:
 A:Gene: Wnt10A
 A:Map position: 2q35
 C:Superfamily: int-1 transforming protein
 C:Keywords: carcinogenesis; glycoprotein

Query Match 57.6%; Score 72; DB 2; Length 417;
 Best Local Similarity 61.1%; Pred. No. 0.0045;

Matches 11; Conservative 5; Mismatches 2; Indels 0; Gaps 0;
 QY 3 AIRECENKFKFERWNCSS 20
 |||:::|:|||||
 Db 92 AIEHCQHQFQRDQWNCSS 109
 |||:::|:|||||
 RESULT 8
 B59392
 Wnt10a protein precursor - mouse
 C:Species: Mus musculus (house mouse)
 C>Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 09-Jul-2004
 C:Accession: B59392
 R:Wang, J.; Shackleford, G.M.
 Oncogene 13, 1537-1544, 1996
 A>Title: Murine Wnt10a and Wnt10b: cloning and expression in developing limbs, face and
 A:Reference number: A59392; MUID:96269404; PMID:8875992
 A:Accession: B59392
 A>Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-417 <W>
 A:Cross-references: UNIPROT:P70701; GB:U61969; NID:q1546012; PID:q2501665; PIDN:AAB08085
 A>Note: proto-oncogene, potential transforming capacity, secreted protein, developmental
 C:Superfamily: int-1 transforming protein
 F:1-36/Domain: signal sequence #status predicted <SIG>
 F:37-417/Product: Wnt10a protein #status predicted <MAT>

Query Match 57.6%; Score 72; DB 2; Length 417;
 Best Local Similarity 61.1%; Pred. No. 0.0045;
 Matches 11; Conservative 5; Mismatches 2; Indels 0; Gaps 0;
 QY 3 AIRECENKFKFERWNCSS 20
 |||:::|:|||||
 Db 92 AIEHCQHQFQRDQWNCSS 109
 |||:::|:|||||

RESULT 9
 A29650
 wingless (wg) protein precursor - fruit fly (Drosophila melanogaster)
 N:Alternate names: int-1 homolog (Dint-1)
 C:Species: Drosophila melanogaster
 C>Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
 C:Accession: A29650; S41671; S41157
 R:Rijsewijk, F.; Schuurmann, M.; Wagenaar, E.; Parren, P.; Weigel, D.; Nusse, R.
 Cell 50, 649-657, 1987
 A>Title: The Drosophila homolog of the mouse mammary oncogene int-1 is identical to the
 A:Reference number: A29650; MUID:87273528; PMID:3111720
 A:Accession: A29650
 A:Molecule type: mRNA
 A:Residues: 1-468 <RI>
 A:Cross-references: UNIPROT:P09615; GB:M17230; NID:q157765; PIDN:AAA28647.1; PID:q157766
 R:van den Heuvel, M.; Harryman-Samos, C.; Klingensmith, J.; Perrimon, N.; Nusse, R.
 EMBO J. 12, 5293-5302, 1993
 A>Title: Mutations in the segment polarity genes wingless and porcupine impair secretion
 A:Reference number: S41671; MUID:94085405; PMID:8262072
 A:Accession: S41671
 A>Status: preliminary; not compared with conceptual translation
 A:Molecule type: nucleic acid
 A:Residues: 1-468 <V>
 R:Nagy, L.M.; Carroll, S.
 Nature 367, 460-463, 1994
 A>Title: Conservation of wingless patterning functions in the short-germ embryos of Trib
 A:Reference number: S41157; MUID:94150623; PMID:8107804
 A:Accession: S41157
 A>Status: not compared with conceptual translation
 A:Molecule type: mRNA
 A:Residues: 101-468 <N>
 C:Genetics:
 A:Gene: FlyBase:wg
 A:Cross-references: FlyBase:FBgn004009
 C:Superfamily: int-1 transforming protein
 C:Keywords: glycoprotein

Query Match 57.6%; Score 72; DB 2; Length 468;
 Best Local Similarity 55.0%; Pred. No. 0.005;
 Matches 11; Conservative 6; Mismatches 3; Indels 0; Gaps 0;
 QY 3 AIRECENKFKFERWNCSSRD 22
 |||:::|:|||||
 Db 89 AISECQHQFRRNRWNCSTRN 108
 |||:::|:|||||
 RESULT 10
 TVFPT1
 transforming protein int-1 - fruit fly (Drosophila melanogaster)
 C:Species: Drosophila melanogaster
 C>Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 16-Feb-1997
 C:Accession: A31337
 R:Uzvoelgyi, E.; Kiss, I.; Pitt, A.; Arsenian, S.; Ingvarsson, S.; Udvardy, A.; Hamada, N.
 Proc. Natl. Acad. Sci. U.S.A. 85, 3034-3038, 1988
 A>Title: Drosophila homolog of the murine int-1 protooncogene.
 A:Reference number: A31337; MUID:88203634; PMID:3129722
 A:Accession: A31337
 A:Molecule type: mRNA
 A:Residues: 1-469 <UZ>
 C:Genetics:
 A:Gene: int-1
 A:Cross-references: FlyBase:FBgn004009
 C:Superfamily: int-1 transforming protein
 C:Keywords: glycoprotein; oncogene; transforming protein
 F:49,103,108,415/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 57.6%; Score 72; DB 1; Length 469;
 Best Local Similarity 55.0%; Pred. No. 0.005;
 Matches 11; Conservative 6; Mismatches 3; Indels 0; Gaps 0;
 QY 3 AIRECENKFKFERWNCSSRD 22
 |||:::|:|||||
 Db 89 AISECQHQFRRNRWNCSTRN 108
 |||:::|:|||||

RESULT 11
 A48821
 Wnt-5 protein - fruit fly (Drosophila melanogaster)
 N:Alternate names: intercellular signaling protein Dmnt-5
 C:Species: Drosophila melanogaster
 C>Date: 01-Dec-1993 #sequence_revision 01-Mar-1996 #text_change 09-Jul-2004
 C:Accession: A48821; S27815
 R:Eisenberg, L.M.; Ingham, P.W.; Brown, A.M.
 Dev. Biol. 154, 73-83, 1992
 A>Title: Cloning and characterization of a novel Drosophila Wnt gene, Dmnt-5, a putative
 A:Reference number: A48821; MUID:93050786; PMID:1358729
 A:Contents: embryo
 A:Accession: A48821
 A>Status: preliminary; not compared with conceptual translation
 A:Molecule type: mRNA
 A:Residues: 1-1004 <EIS>
 A:Cross-references: UNIPROT:P28466; EMBL:M97450; NID:q158805; PID:q158806
 A>Note: sequence extracted from NCBI backbone (NCBIP:117188)
 C:Genetics:
 A:Gene: FlyBase:Wnt5
 A:Cross-references: FlyBase:FBgn0010194
 Query Match 56.8%; Score 71; DB 2; Length 1004;
 Best Local Similarity 60.0%; Pred. No. 0.014;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REAIRECENKFKFERWNCSS 20
 |||:::|:|||||
 Db 577 RAAIQECQFQFNRRWNCSTN 596
 |||:::|:|||||
 RESULT 12
 I50110
 Wnt10a protein - zebra fish
 C:Species: Brachydanio rerio (zebra fish)

C>Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
C:Accession: I50110
R:Kelly, G.M.; Lai, C.; Moon, R.T.
Dev. Biol. 158, 113-121, 1993
A:Title: Expression of wnt10a in the central nervous system of developing zebrafish.
A:Reference number: I50110; MUID:93321777; PMID:8330668
A:Accession: I50110
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-442 <KE>
A:CROSS-references: UNIPROT:P43446; EMBL:U02544; NID:g408478; PIDN:AAA03431.1; PID:g4084
C:Genetics:
A:Gene: wnt10a
C:Superfamily: int-1 transforming protein

Query Match 56.0%; Score 70; DB 2; Length 442;
Best Local Similarity 61.1%; Pred. No. 0.0094;
Matches 11; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

QY 3 AIRECENKFKFERWNCSS 20
DB 129 AIHECQHQRFRGHWNCSS 146

RESULT 13
B56549
cell-cell signaling molecule Awnt-5B precursor - axolotl
C:Species: Ambystoma mexicanum (axolotl)
C>Date: 21-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 09-Jul-2004
C:Accession: B56549; S25000
R:Busse, U.; Seguin, C.
Mech. Dev. 40, 83-72, 1993
A:Title: Isolation of cDNAs for two closely related members of the axolotl wnt family, A
A:Reference number: A56549; MUID:93183769; PMID:8443107
A:Accession: B56549
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-357 <BUS>
A:CROSS-references: UNIPROT:Q06443; EMBL:Z14048; NID:g62428; PIDN:CAA78416.1; PID:g62428
A:Experimental source: embryo
A>Note: sequence extracted from NCBI backbone (NCBIP:126896)
C:Superfamily: int-1 transforming protein

Query Match 55.2%; Score 69; DB 2; Length 357;
Best Local Similarity 50.0%; Pred. No. 0.011;
Matches 11; Conservative 5; Mismatches 6; Indels 0; Gaps 0;

QY 1 REAIRECENKFKFERWNCSSRD 22
DB 75 KTGKECQYQKRRWNCSTVD 96

RESULT 14
H36470
Wnt-7b protein - mouse
C:Species: Mus musculus (house mouse)
C>Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
C:Accession: H36470
R:Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
Genes Dev. 4, 2319-2332, 1990
A:Title: Expression of multiple novel wnt-1/int-1-related genes during fetal and adult m
A:Reference number: A36470; MUID:91122634; PMID:2279700
A:Accession: H36470
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-349 <GAV>
A:CROSS-references: UNIPROT:P28047; GB:M89802; NID:g202411; PIDN:AAA40571.1; PID:g202412
C:Superfamily: int-1 transforming protein

Query Match 54.4%; Score 68; DB 2; Length 349;
Best Local Similarity 58.8%; Pred. No. 0.015;
Matches 10; Conservative 5; Mismatches 2; Indels 0; Gaps 0;

QY 4 IRECECNKFKFERWNCSS 20
DB 70 IDECQHQRFRGHWNCSSA 86

RESULT 15
JC2451
Cwnt-4 protein precursor - chicken
C:Species: Gallus gallus (chicken)
C>Date: 21-Mar-1995 #sequence_revision 26-May-1995 #text_change 03-May-1996
C:Accession: JC2451
R:Yoshioka, H.; Ohuchi, H.; Nohno, T.; Fujiwara, A.; Tanda, N.; Kawakami, Y.; Noji, S.
Biochem. Biophys. Res. Commun. 203, 1581-1588, 1994
A:Title: Regional expression of the Cwnt-4 gene in developing chick central nervous syst
A:Reference number: JC2451; MUID:95032034; PMID:7945308
A:Accession: JC2451
A:Molecule type: mRNA
A:Residues: 1-351 <YOS>
C:Comment: This protein is involved in segmentation of forebrain into the neuromere D2 ar
C:Genetics:
A:Gene: Cwnt-4
C:Superfamily: int-1 transforming protein
C:Keywords: glycoprotein
F:1-36/Domain: signal sequence #status predicted <SIG>
F:37-351/Product: Cwnt-4 protein #status predicted <MAT>
F:88,297/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 54.4%; Score 68; DB 2; Length 351;
Best Local Similarity 55.0%; Pred. No. 0.015;
Matches 11; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 3 AIRECENKFKFERWNCSSRD 22
DB 74 AIECQYQFRNRWNCSTLD 93

Search completed: March 31, 2005, 02:58:02
Job time : 27 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 31, 2005, 02:41:24 ; Search time 116.5 Seconds
(without alignments)
96.702 Million cell updates/sec

Title: US-10-816-720-4

Perfect score: 125

Sequence: 1 REAIRECEKFKFERWNCSSRD 22

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_03:*

1: uniprot_sprot:*

2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	125	100.0	393	2	Q9TVJ1	Q9tvj1 caenorhabdi
2	78	62.4	125	2	Q704Z7	Q704z7 meriones un
3	78	62.4	263	2	Q8HXD3	Q8hxd3 macaca fasc
4	78	62.4	311	2	Q9QXK5	Q9qxx5 rattus norv
5	78	62.4	351	1	WN2B_XENLA	P87387 xenopus lae
6	78	62.4	389	1	WN2B_MOUSE	O70283 mus musculu
7	78	62.4	391	1	WN2B_HUMAN	Q93097 homo sapien
8	77	61.6	364	1	WNT6_MOUSE	P22727 mus musculu
9	77	61.6	364	2	Q80ZM9	Q80zm9 mus musculu
10	77	61.6	365	1	WNT6_HUMAN	Q9y6f9 homo sapien
11	77	61.6	365	2	Q8N2E5	Q8n2e5 homo sapien
12	77	61.6	392	1	WNT1_BOMMO	P49340 bombyx mori
13	75	60.0	315	2	Q9PU13	Q9pu13 gallus galli
14	75	60.0	385	2	Q98SN7	Q98sn7 gallus galli
15	74	59.2	360	1	WN5C_XENLA	P33945 xenopus lae
16	74	59.2	360	2	Q6D1I0	Q6d1i0 xenopus tro
17	74	59.2	360	2	Q7T0M2	Q7t0m2 xenopus lae
18	74	59.2	387	2	Q8AY89	Q8ay89 brachydanio
19	74	59.2	393	2	Q7Q1L1	Q7q1l1 anopheles g
20	73	58.4	389	2	P79856	P79856 pleurodeles
21	72	57.6	359	1	WN5B_MOUSE	P22726 mus musculu
22	72	57.6	370	2	Q8WS75	Q8ws75 branchiosto
23	72	57.6	415	2	Q8IP11	Q8ip11 drosophila
24	72	57.6	417	1	WN1A_HUMAN	Q9gzt5 homo sapien
25	72	57.6	417	1	WN1A_MOUSE	P70701 mus musculu
26	72	57.6	468	1	WNTG_DROME	P09615 drosophila
27	71	56.8	330	2	Q8MZJ3	Q8mzj3 myrmica ame
28	71	56.8	337	2	Q8MZJ4	Q8mzj4 crematogast
29	71	56.8	359	1	WN5B_HUMAN	Q9h1j7 homo sapien
30	71	56.8	1004	1	WNT5_DROME	P28466 drosophila
31	70	56.0	309	1	WNT8_DROME	Q9vfx1 drosophila

32	70	56.0	317	2	Q7QOK5	Q7qok5 anopheles g
33	70	56.0	334	2	Q8MZJ2	Q8mzj2 formica nit
34	70	56.0	355	2	Q75PH5	Q75ph5 achaeaearanea
35	70	56.0	442	1	WN1A_BRARE	P43446 brachydanio
36	69	55.2	357	1	WN5B_AMEME	Q06443 ambystoma m
37	68	54.4	272	2	Q7PM75	Q7pm75 anopheles g
38	68	54.4	337	2	Q8MZJ5	Q8mzj5 pheidole mo
39	68	54.4	349	1	WN7B_MOUSE	P28047 mus musculu
40	68	54.4	351	1	WNT4_CHICK	P49337 gallus gall
41	68	54.4	351	1	WNT4_HUMAN	P56705 homo sapien
42	68	54.4	351	1	WNT4_MOUSE	P22724 mus musculu
43	68	54.4	351	1	WNT4_RAT	Q9gxx5 rattus norv
44	68	54.4	351	1	WNT4_XENLA	P49338 xenopus lae
45	68	54.4	351	2	Q8IUM6	Q8ium6 homo sapien

ALIGNMENTS

RESULT 1

ID	Q9TVJ1	PRELIMINARY;	PRT;	393 AA.
AC	Q9TVJ1;			
DT	01-MAY-2000 (Tremblrel. 13, Created)			
DT	01-MAY-2000 (Tremblrel. 13, Last sequence update)			
DT	25-OCT-2004 (Tremblrel. 28, Last annotation update)			
DE	Hypothetical protein W08D2.1 (Wnt homolog).			
GN	Name=egl-20; ORFNames=W08D2.1;			
OS	Caenorhabditis elegans.			
OC	Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;			
OC	Rhabditidae; Peloderinae; Caenorhabditis.			
OX	NCBI_taxID=6239;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RC	STRAIN=Bristol N2;			
RX	MEDLINE=99069613; PubMed=9851916;			
RA	none;			
RT	"Genome sequence of the nematode C.elegans: A platform for			
RT	investigating biology.";			
RL	Science 282:2012-2018(1998).			
RN	[2]			
RP	SEQUENCE FROM N.A.			
RC	STRAIN=Bristol N2;			
RA	Swinburne J., Ainscough R.;			
RL	Submitted (MAR-1996) to the EMBL/GenBank/DBJ databases.			
RN	[3]			
RP	SEQUENCE FROM N.A.			
RC	STRAIN=N2;			
RX	MEDLINE=99054967; PubMed=9834184;			
RA	Malcoof J.N., Whangbo J., Harris J.M., Jongeward G.D., Kenyon C.;			
RT	"A Wnt signaling pathway controls hox gene expression and neuroblast			
RT	migration in C. elegans.";			
RL	Development 126:37-49(1999).			
CC	-!- FUNCTION: Ligand for members of the frizzled family of seven			
CC	transmembrane receptors (By similarity).			
CC	-!- SUBCELLULAR LOCATION: Possibly secreted and associates with the			
CC	extracellular matrix (By similarity).			
CC	-!- SIMILARITY: Belongs to the Wnt family.			
DR	EMBL; J070271; CAB61041.1; -.			
DR	EMBL; AF103732; AAD03603.1; -.			
DR	WormBase; WBGene00001188; W08D2.1.			
DR	WormPep; W08D2.1; CE25152.			
DR	GO; GO:0005576; C:extracellular; IEA.			
DR	GO; GO:0004871; F:signal transducer activity; IEA.			
DR	GO; GO:0007275; P:development; IEA.			
DR	GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.			
DR	InterPro; IPR005817; Wnt.			
DR	InterPro; IPR005816; Wnt_grthfactor.			
DR	Pfam; PF00110; wnt; 1.			
DR	PRINTS; PR01349; WNTPROTEIN.			
DR	SMART; SM00097; WNT1; 1.			
KW	Developmental protein; Hypothetical protein; Wnt signaling pathway.			
SEQUENCE	393 AA; 45257 MW; D75B0DF6F15C89F2 CRC64;			

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Query Match      100.0%; Score 125; DB 2; Length 393;
Best Local Similarity 100.0%; Pred. No. 1.8e-10;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 REAIRECNKPKFERWNCSSRD 22
    |||||
DB 93 REAIRECNKPKFERWNCSSRD 114
    |||||

RESULT 2
Q70427 PRELIMINARY; PRT; 125 AA.
AC Q70427;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DE WNT2b protein (Fragment).
GN Name=wnt2b;
OS Meriones unguiculatus (Mongolian jird) (Mongolian gerbil);
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Gerbillinae;
OC Meriones.
OX NCBI_TaxID=10047;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RA Loehr H.B.;
RL Submitted (JAN-2004) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
    transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
    extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AJ620337; CAF04492.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR009140; Wnt2.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01842; WNT2PROTEIN.
DR SMART; SM00097; WNT1; 1.
DR Developmental protein; Wnt signaling pathway.
FT NON_TER 1
FT TER 1
SQ SEQUENCE 125 AA; 14353 MW; D85CE577582AA1A2 CRC64;

Query Match      62.4%; Score 78; DB 2; Length 125;
Best Local Similarity 54.5%; Pred. No. 0.00069;
Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKPKFERWNCSSRD 22
    |||||
DB 12 REWIRECQHFRHRWNCSTILD 33
    |||||

RESULT 3
Q8HXD3 PRELIMINARY; PRT; 263 AA.
AC Q8HXD3;
DT 01-NAR-2003 (TrEMBLrel. 23, Created)
DT 01-NAR-2003 (TrEMBLrel. 23, Last sequence update)
DE Hypothetical protein.
OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey);
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecoidea; Macaca.
OX NCBI_TaxID=9541;

Query Match      100.0%; Score 125; DB 2; Length 393;
Best Local Similarity 100.0%; Pred. No. 1.8e-10;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 REAIRECNKPKFERWNCSSRD 22
    |||||
DB 93 REAIRECNKPKFERWNCSSRD 114
    |||||

RESULT 2
Q70427 PRELIMINARY; PRT; 125 AA.
AC Q70427;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DE WNT2b protein (Fragment).
GN Name=wnt2b;
OS Meriones unguiculatus (Mongolian jird) (Mongolian gerbil);
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Gerbillinae;
OC Meriones.
OX NCBI_TaxID=10047;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RA Loehr H.B.;
RL Submitted (JAN-2004) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
    transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
    extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AJ620337; CAF04492.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR009140; Wnt2.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01842; WNT2PROTEIN.
DR SMART; SM00097; WNT1; 1.
DR Developmental protein; Wnt signaling pathway.
FT NON_TER 1
FT TER 1
SQ SEQUENCE 125 AA; 14353 MW; D85CE577582AA1A2 CRC64;

Query Match      62.4%; Score 78; DB 2; Length 125;
Best Local Similarity 54.5%; Pred. No. 0.00069;
Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKPKFERWNCSSRD 22
    |||||
DB 12 REWIRECQHFRHRWNCSTILD 33
    |||||

RESULT 3
Q8HXD3 PRELIMINARY; PRT; 263 AA.
AC Q8HXD3;
DT 01-NAR-2003 (TrEMBLrel. 23, Created)
DT 01-NAR-2003 (TrEMBLrel. 23, Last sequence update)
DE Hypothetical protein.
OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey);
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecoidea; Macaca.
OX NCBI_TaxID=9541;

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RN RP SEQUENCE FROM N.A.
RC TISSUE=Frontal lobe left;
RX MEDLINE=21458557; PubMed=11574149; DOI=10.1016/S0178-1119(01)00665-5;
RA Osada N., Hida M., Kusuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,
RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;
RT "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human
    chromosomes.";
RL Gene 275:31-37 (2001).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Frontal lobe left;
RA Hashimoto K., Osada N., Hida M., Kusuda J., Sugano S.;
RL Submitted (OCT-2002) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
    transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
    extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AB093657; BAC21631.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR GO; GO:0006457; P:protein folding; IEA.
DR InterPro; IPR002130; CSA_Pase.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR009140; Wnt2.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01842; WNT2PROTEIN.
DR SMART; SM00097; WNT1; 1.
DR Developmental protein; Hypothetical protein; Wnt signaling pathway.
SQ SEQUENCE 263 AA; 29322 MW; DD39F6FAC55B30AE CRC64;

Query Match      62.4%; Score 78; DB 2; Length 263;
Best Local Similarity 54.5%; Pred. No. 0.0015;
Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKPKFERWNCSSRD 22
    |||||
DB 101 REWIRECQHFRHRWNCSTILD 122
    |||||

RESULT 4
Q9QXK5 PRELIMINARY; PRT; 311 AA.
AC Q9QXK5;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-NAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Wnt2b protein (Fragment).
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Sprague-Dawley; TISSUE=Ovary;
RX MEDLINE=22067498; PubMed=1207409; DOI=10.1210/en.143.7.2741;
RA Ricken A., Lochhead P., Kontogiannas M., Farookhi R.;
RT "Wnt signaling in the ovary: identification and compartmentalized
    expression of wnt-2, wnt-2b, and frizzled-4 mRNAs.";
RL Endocrinology 143:2741-2749 (2002).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=Sprague-Dawley; TISSUE=Ovary;
RA Ricken A.M., Farookhi R.;
RL Submitted (NOV-1999) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
    transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the

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CC extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
CC EMBL; AF204873; AAF18104.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR InterPro; IPR005817; Wnt.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
DR Developmental protein; Wnt signaling pathway.
KW NON TER
FT SIGNAL 1 16
FT CHAIN 17 351
FT CARBOHYD 77 77
SQ SEQUENCE 311 AA; 35426 MW; 3DB1145833C1871C CRC64;

Query Match 62.4%; Score 78; DB 2; Length 311;
Best Local Similarity 54.5%; Pred. No. 0.0018;
Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKPKFERWNCSSRD 22
DB 21 REWIRECQHFRHWRNCITLTD 42

RESULT 5
WN2B_XENLA
ID WN2B_XENLA STANDARD; PRT; 351 AA.
AC P87387;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-2b protein precursor (Xwnt-2b).
GN Name=Wnt-2b; Synonyms=Wnt13;
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Ovary;
RX MEDLINE=97346725; PubMed=9203142; DOI=10.1016/S0925-4773(97)00041-5;
RA Landesman Y., Sokol S.Y.;
RT "Wnt-2b is a novel axis-inducing Xenopus Wnt, which is expressed in embryonic brain.";
RL Mech. Dev. 63:199-209(1997).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Could participate in the process of blood vessel formation. Is likely to signal over only few cell diameters (By similarity). May be involved in brain development and in later organogenesis.
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.
CC -!- DEVELOPMENTAL STAGE: Expression near the prosencephalic-mesencephalic boundary of the developing brain in neurula and tailbud stages, and also in nonbrain areas at tadpole stages. Maximal expression is seen at stage 30 of the developing brain and in the whole embryo.
CC -!- SIMILARITY: Belongs to the Wnt family.
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CC EMBL; U66288; AAC60218.1; -.

CC extracellular matrix.
CC -!- DEVELOPMENTAL STAGE: Expression near the prosencephalic-mesencephalic boundary of the developing brain in neurula and tailbud stages, and also in nonbrain areas at tadpole stages. Maximal expression is seen at stage 30 of the developing brain and in the whole embryo.
CC -!- SIMILARITY: Belongs to the Wnt family.
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CC EMBL; AF070988; AAC25397.1; -.
DR EMBL; AF038384; AAC40123.1; -.
DR MGD; MGI:1261834; Wnt2b.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR009140; Wnt2.
DR InterPro; IPR005816; Wnt_grthfactor.

DR InterPro; IPR005817; Wnt.
DR InterPro; IPR009140; Wnt2.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01842; WNT2PROTEIN.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
DR Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
KW SIGNAL 1 16
KW CHAIN 17 351
KW CARBOHYD 77 77
SQ SEQUENCE 351 AA; 40119 MW; 44E163F6BB4D75F5 CRC64;

Query Match 62.4%; Score 78; DB 1; Length 351;
Best Local Similarity 54.5%; Pred. No. 0.002;
Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECNKPKFERWNCSSRD 22
DB 61 KEWIRECQHFRHWRNCITLTD 82

RESULT 6
WN2B_MOUSE
ID WN2B_MOUSE STANDARD; PRT; 389 AA.
AC Q70283; O88530;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-2b protein precursor (Wnt-13).
GN Name=Wnt2b; Synonyms=Wnt13;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=98213635; PubMed=9545553; DOI=10.1016/S0925-4773(98)00040-9;
RA Zakin L.D.J., Mazan S., Maury M., Martin N., Guenet J.L., Brulet P.;
RT "Structure and expression of Wnt13, a novel mouse Wnt2 related gene.";
RL Mech. Dev. 73:107-116(1998).
RN [2]
RP SEQUENCE OF 154-389 FROM N.A.
RC STRAIN=NIH Swiss;
RX MEDLINE=98253821; PubMed=9584130;
RA Grove E.A., Toie S., Limon J., Yip L., Ragsdale C.W.;
RT "The hem of the embryonic cerebral cortex is defined by the expression of multiple Wnt genes and is compromised in Gli3-deficient mice.";
RL Development 125:2315-2325(1998).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Is likely to signal over only few cell diameters (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.
CC -!- SIMILARITY: Belongs to the Wnt family.
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CC EMBL; AF070988; AAC25397.1; -.
DR EMBL; AF038384; AAC40123.1; -.
DR MGD; MGI:1261834; Wnt2b.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR009140; Wnt2.
DR InterPro; IPR005816; Wnt_grthfactor.

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nucleus, subthalamic nucleus and thalamus. Also detected in fetal brain, lung and kidney. Isoform 2 is expressed in fetal brain, fetal lung, fetal kidney, caudate nucleus, testis and cancer cell lines.

CC PFAM: PF00110; wnt, 1.
CC PRINTS: PR01842; WNT2PROTEIN.
CC PRINTS: PR01349; WNTPROTEIN.
CC SMART: SM00097; WNT1; 1.
CC PROSITE: PS00246; WNT1; 1.
CC SIGNAL 1
CC CHAIN ? 389 Wnt-2b protein.
CC CARBOHYD 115 115 N-linked (GlcNAc...) (Potential).
CC CARBOHYD 281 281 N-linked (GlcNAc...) (Potential).
CC CONFLICT 313 313 S -> A (in Ref. 2).
CC SEQUENCE 389 AA; 43769 MW; DB18B6B8CC14FD CRC64;

Query Match 62.4%; Score 78; DB 1; Length 389;
Best Local Similarity 54.5%; Pred. No. 0.0022;
Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECEKFKFERWNCSSRD 22
DB 99 REWIRECQHFRHWNCTTLD 120

RESULT 7
WNT2B_HUMAN STANDARD; PRT; 391 AA.
ID WNT2B_HUMAN
AC Q93097; Q9HDC1; Q9HDC2;
DT 01-NOV-1997 (Rel. 35, Created)
DT 15-OCT-2001 (Rel. 40, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-2b protein precursor (Wnt-13).
DE Names=WNT2B; Synonyms=WNT13;
GN Homo sapiens (Human).
OS Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP MEDLINE=96358637; PubMed=8761309;
RA Katoh M., Hirai M., Sugimura T., Terada M.;
RT "Cloning, expression and chromosomal localization of Wnt-13, a novel member of the Wnt gene family."
RL Oncogene 13:873-876(1996).
RN [2]
RP SEQUENCE FROM N.A. (ISOFORMS 1 AND 2).
RX MEDLINE=20403898; PubMed=10944466; DOI=10.1006/bbrc.2000.3252;
RA Katoh M., Kikuchi H., Saitoh T., Sagara N., Koike J.;
RT "Alternative splicing of the WNT-2B/WNT-13 gene."
RL Biochem. Biophys. Res. Commun. 275:209-216(2000).
RN [3]
RP SEQUENCE OF 243-359 FROM N.A.
RX MEDLINE=98110581; PubMed=9441749; DOI=10.1006/geno.1997.5041;
RA Bergstein I., Eisenberg L.M., Bhalarao J., Jenkins N.A., Copeland N.G., Osborne M.P., Bowcock A.M., Brown A.M.C.;
RT "Isolation of two novel Wnt genes, WNT14 and WNT15, one of which (WNT15) is closely linked to WNT3 on human chromosome 17q21."
RL Genomics 46:450-458(1997).

CC -!- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Is likely to signal over only a few cell diameters. May be involved in normal development or differentiation as well as in carcinogenesis.
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=2;
CC IsoId=Q93097-1; Sequence=Displayed;
CC Name=1;
CC IsoId=Q93097-2; Sequence=VSP 006794;
CC -!- TISSUE SPECIFICITY: Isoform 1 is expressed in adult heart, brain, placenta, lung, prostate, testis, ovary, small intestine and colon. In the adult brain, it is mainly found in the caudate

CC nucleus, subthalamic nucleus and thalamus. Also detected in fetal brain, lung and kidney. Isoform 2 is expressed in fetal brain, fetal lung, fetal kidney, caudate nucleus, testis and cancer cell lines.
CC -!- SIMILARITY: Belongs to the Wnt family.
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CC EMBL: Z71621; CAA96283.1; --
CC EMBL: AB045116; BAB11984.1; --
CC EMBL: AB045117; BAB11985.1; --
CC EMBL: AF028701; AAC39552.1; --
CC Genbank: HGNC:12781; WNT2B.
CC MIM: 601968; --
CC GO: GO:0005615; C:extracellular space; TAS.
CC GO: GO:0009653; P:morphogenesis; TAS.
CC InterPro: IPR005817; Wnt.
CC InterPro: IPR005816; Wnt_2.
CC InterPro: IPR005816; Wnt_2.
CC Pfam: PF00110; wnt, 1.
CC PRINTS: PR01842; WNT2PROTEIN.
CC PRINTS: PR01349; WNTPROTEIN.
CC SMART: SM00097; WNT1; 1.
CC PROSITE: PS00246; WNT1; 1.
CC Alternative splicing; Developmental protein; Glycoprotein; Signal;
CC Wnt signaling pathway.
CC SIGNAL 1
CC CHAIN ? 391
CC CARBOHYD 117 117 N-linked (GlcNAc...) (Potential).
CC CARBOHYD 283 283 N-linked (GlcNAc...) (Potential).
CC VARSPLIC 1 61
CC CONFLICT 151 151 V -> I (in Ref. 1).
CC CONFLICT 182 182 D -> T (in Ref. 1).
CC CONFLICT 233 233 L -> V (in Ref. 1).
CC CONFLICT 287 287 A -> T (in Ref. 3).
CC CONFLICT 297 297 T -> S (in Ref. 1).
CC SEQUENCE 391 AA; 43770 MW; BD7BB7F795FB33BI CRC64;
Query Match 62.4%; Score 78; DB 1; Length 391;
Best Local Similarity 54.5%; Pred. No. 0.0022;
Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 REAIRECEKFKFERWNCSSRD 22
DB 101 REWIRECQHFRHWNCTTLD 122

RESULT 8
WNT6_MOUSE STANDARD; PRT; 364 AA.
ID WNT6_MOUSE
AC P22727;
DT 01-AUG-1991 (Rel. 19, Created)
DT 01-AUG-1991 (Rel. 19, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-6 protein precursor.
DE Name=Wnt6; Synonyms=Wnt-6;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=91122634; PubMed=22797900;
RA Gavin B.J., McMahon J.A., McMahon A.P.;

RT "Expression of multiple novel Wnt-1/int-1-related genes during fetal
 RL Genes Dev. 4:2319-2332(1990).
 CC -!- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors. Probable developmental protein. May be a
 CC signaling molecule which affects the development of discrete
 CC regions of tissues. Is likely to signal over only few cell
 CC diameters.
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix.
 CC -!- SIMILARITY: Belongs to the Wnt family.
 CC
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 CC
 DR EMBL; M89800; AAA40569.1; -.
 DR PIR; F36470; F36470.
 DR MGD; MGI:98960; Wnt6.
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR009143; Wnt6.
 DR InterPro; IPR005816; Wnt_gthfactor.
 DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PR01845; WNT6PROTEIN.
 DR PRINTS; PR01349; WNTPROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00246; WNT1; 1.
 DR Developmental protein; Signal; Wnt signaling pathway.
 KW SIGNAL 1 23
 FT CHAIN 24 364 Wnt-6 protein.
 FT CARBOHYD 85 85 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 310 310 N-linked (GlcNAc...) (Potential).
 SQ SEQUENCE 364 AA; 39586 MW; 6F298B19EA9910AC CRC64;
 Query Match 61.6%; Score 77; DB 1; Length 364;
 Best Local Similarity 60.0%; Pred. No. 0.0029;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REATRECEKPKFERWNCSS 20
 | :|||: :|||: |||||
 Db 69 RLGVRECQFQFRFRWNCSS 88
 RESULT 9
 Q80ZM9 PRELIMINARY; PRT; 364 AA.
 AC Q80ZM9;
 DT 01-JUN-2003 (TRENBLrel. 24, Created)
 DT 01-JUN-2003 (TRENBLrel. 24, Last sequence update)
 DT 01-MAR-2004 (TRENBLrel. 26, Last annotation update)
 DE Wingless-related MMTV integration site 6.
 GN Name=Wnt6;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Limb;
 EX MEDLINE=2338257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Klausner R.B., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shemen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.P., Casavant T.L., Scheetz T.B.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahy J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grinstead J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
 RA Jones S.J., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Limb;
 RA Strausberg R.;
 RL Submitted (MAR-2003) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors (By similarity).
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix (By similarity).
 CC -!- SIMILARITY: Belongs to the Wnt family.
 DR EMBL; BC048700; AAH48700.1; -.
 DR MGD; MGI:98960; Wnt6.
 DR GO; GO:0005615; C:extracellular space; TAS.
 DR GO; GO:0005515; F:protein binding; IPI.
 DR GO; GO:0005102; F:receptor binding; TAS.
 DR GO; GO:0007267; P:cell-cell signaling; TAS.
 DR GO; GO:0009887; P:organogenesis; TAS.
 DR GO; GO:0007185; P:signal transduction; TAS.
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR009143; Wnt6.
 DR InterPro; IPR005816; Wnt_gthfactor.
 DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PR01845; WNT6PROTEIN.
 DR PRINTS; PR01349; WNTPROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00246; WNT1; 1.
 KW Developmental protein; Wnt signaling pathway.
 SQ SEQUENCE 364 AA; 39655 MW; 6F28CE191F98A0AC CRC64;
 Query Match 61.6%; Score 77; DB 2; Length 364;
 Best Local Similarity 60.0%; Pred. No. 0.0029;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REATRECEKPKFERWNCSS 20
 | :|||: :|||: |||||
 Db 69 RLGVRECQFQFRFRWNCSS 88
 RESULT 10
 WNT6 HUMAN
 ID WNT6 HUMAN STANDARD; PRT; 365 AA.
 AC Q9Y6F9; Q9H1J6; Q9H238;
 DT 16-OCT-2001 (Rel. 40, Created)
 DT 16-OCT-2001 (Rel. 40, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Wnt-6 protein precursor.
 GN Name=Wnt6;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Testa T.T., Mossakowska D.B., Carter P.S., Hu E., Zhu Y.,
 RA Kelsell D.P., Murdoch P.R., Herry N.C., Lewis C.J., Cross D.A.,
 RA Culbert A.A., Reith A.D., Barnes M.R.;
 RT "Molecular cloning and characterization of six novel human WNT
 RT genes.";
 RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=21248387; PubMed=11350055; DOI=10.1006/bbrc.2001.4855;

RA Kirikoshi H., Sekihara H., Kato H.;
 RT "WNT10A and WNT6, clustered in human chromosome 2q35 region with head-
 RT to-tail manner, are strongly co-expressed in SH480 cells.";
 RL Biochem. Biophys. Res. Commun. 283:798-805(2001).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Placenta;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Schenker C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.P., Jordan H., Moore T.I., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.P., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahy J., Helton E., Kettner M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalius D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [4]
 RP SEQUENCE OF 28-365 FROM N.A.
 RA Rump A., Hayes C., Brown S.D.M., Rosenthal A.;
 RT "Genomic sequence of the Wnt6 gene and the Wnt10a gene from human
 RT 2q35.";
 RL Submitted (OCT-2000) to the EMBL/GenBank/DBSJ databases.
 RN [5]
 RP SEQUENCE OF 295-337 FROM N.A.
 RX MEDLINE=99276447; PubMed=10343101;
 RA Rankin J., Strachan T., Lako M., Lindsay S.;
 RT "Partial cloning and assignment of WNT6 to human chromosome band 2q35
 RT by in situ hybridization.";
 RL Cytogenet. Cell Genet. 84:50-52(1999).
 CC -!- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors. Probably developmental protein. May be a
 CC signaling molecule which affects the development of discrete
 CC regions of tissues. Is likely to signal over only few cell
 CC diameters.
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix.
 CC -!- SIMILARITY: Belongs to the Wnt family.
 CC -----
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 CC -----
 DR EMBL; AY009401; AAG38661.1; -;
 DR EMBL; AB059570; BAB55603.1; -;
 DR EMBL; BC004329; AAO4329.1; -;
 DR EMBL; AF315943; AAG45154.1; -;
 DR EMBL; AF079522; AAD41674.1; -;
 DR FIR; JC7694; JC7694.
 DR Genew; HGNC:12785; WNT6.
 DR MIM; 604663; -;
 DR GO; GO:0005576; C:extracellular; NAS.
 DR GO; GO:005201; F:extracellular matrix structural constituent; NAS.
 DR GO; GO:0007267; P:cell-cell signaling; NAS.
 DR GO; GO:0007275; P:development; NAS.
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR009143; Wnt6.
 DR InterPro; IPR005816; Wnt_grthfactor.

DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PRO1845; WNT6PROTEIN.
 DR PRINTS; PRO1349; WNTPROTEIN.
 DR SMART; SM000397; WNT1; 1.
 DR PROSITE; PS00246; WNT1; 1.
 KW Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
 FT SIGNAL 1 24 Potential.
 FT CHAIN 25 365 Wnt-6 protein.
 FT CARBOHYD 86 86 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 311 311 N-linked (GlcNAc...) (Potential).
 SQ SEQUENCE 365 AA; 39720 MW; 928D396C58E295B CRC64;
 Query Match 61.6%; Score 77; DB 1; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.0029;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REAIRCECNKFKFERWNCSS 20
 Db | :|||: :|||: |||||
 70 RLGVRECQFQFRFRWNCSS 89
 RESULT 11
 QN2E5 PRELIMINARY; PRT; 365 AA.
 AC QN2E5;
 DT 01-OCT-2002 (TrEMBLrel. 22, Created)
 DT 01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE Hypothetical protein PSEC0220.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 ON NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Whole embryo;
 RA Ota T., Nishikawa T., Suzuki Y., Kawai-Hio Y., Hayashi K., Ishii S.,
 RA Saio K., Yamamoto J., Wakamatsu A., Nagai T., Nakamura Y.,
 RA Nagahara K., Sugano S., Isogai T.;
 RL Submitted (MAR-2002) to the EMBL/GenBank/DBSJ databases.
 CC -!- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors (By similarity).
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix (By similarity).
 CC -!- SIMILARITY: Belongs to the Wnt family.
 DR EMBL; AK075522; BAC11668.1; -;
 DR GO; GO:0005576; C:extracellular; IEA.
 DR GO; GO:0004871; F:signal transducer activity; IEA.
 DR GO; GO:0007275; P:development; IEA.
 DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR009143; Wnt6.
 DR InterPro; IPR005816; Wnt_grthfactor.
 DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PRO1845; WNT6PROTEIN.
 DR PRINTS; PRO1349; WNTPROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00246; WNT1; 1.
 KW Developmental protein; Wnt signaling pathway.
 SQ SEQUENCE 365 AA; 39850 MW; 865E878D1C5C8E5 CRC64;
 Query Match 61.6%; Score 77; DB 2; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.0029;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 REAIRCECNKFKFERWNCSS 20
 Db | :|||: :|||: |||||
 70 RLGVRECQFQFRFRWNCSS 89
 RESULT 12
 WNT1_BOMMO STANDARD; PRT; 392 AA.
 ID WNT1_BOMMO

P49340;
01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Wnt-1 protein precursor.
GN Name=WNT-1;
OS Bombyx mori (silkworm).
OC Eukaryota; Metazoa; Arthropoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
OC Bombycidae; Bombyx.
OX NCBI_TaxID=7091;
RN [1]
RP SEQUENCE FROM N.A.
RA Amanai K., Hui C., Kokubo H., Ueno K., Suzuki Y.;
RL Submitted (JUN-1994) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
transmembrane receptors.
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
extracellular matrix.
CC -!- SIMILARITY: Belongs to the Wnt family.
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CC
CC EMBL; D14169; BAA03211.1; -
DR InterPro; IPR005817; Wnt.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Signal; Wnt signaling pathway.
FT SIGNAL 1 16 Potential.
FT CHAIN 17 392 Wnt-1 protein.
FT CARBOHYD 99 99 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 338 338 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 368 368 N-linked (GlcNAc...) (Potential).
SQ SEQUENCE 392 AA; 44204 MW; EE25BFE2810F44D6 CRC64;
Query Match 61.6%; Score 77; DB 1; Length 392;
Best Local Similarity 55.0%; Pred. No. 0.0031;
Matches 11; Conservative 6; Mismatches 3; Indels 0; Gaps 0;
OY 3 AIRECEKFKFERWNCSSRD 22
DB 85 AFACQHQFKYRWNCSTN 104
RESULT 13
ID Q9PUI3 PRELIMINARY; PRT; 315 AA.
AC Q9PUI3;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE WNT13 protein (Fragment).
GN Name=WNT13;
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Head;
RX MEDLINE=99326348; PubMed=10398532;
RX DOI=10.1002/(SICI)1097-0177(199907)215:3<215::AID-AJ44>3.3.CO;2-N;
RA Jasoni C., Hendrickson A., Roelink H.,

"Analysis of chicken Wnt-13 expression demonstrates coincidence with
cell division in the developing eye and is consistent with a role in
induction."
RL Dev. Dyn. 215:215-224(1999).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AF182403; AAD55446.1; -
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR GO; GO:0006457; P:protein folding; IEA.
DR InterPro; IPR002130; CSA_PPIase.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR005816; Wnt_grthfactor.
DR Pfam; PF00110; wnt; 1.
DR PRINTS; PR01349; WNTPROTEIN.
DR SMART; SM00097; WNT1; 1.
DR PROSITE; PS00246; WNT1; 1.
KW Developmental protein; Wnt signaling pathway.
FT NON_TER 1
SQ SEQUENCE 315 AA; 35682 MW; BAFD5830B97E18EB CRC64;
Query Match 60.0%; Score 75; DB 2; Length 315;
Best Local Similarity 54.5%; Pred. No. 0.005; Indels 0; Gaps 0;
Matches 12; Conservative 5; Mismatches 5;
OY 1 REAIRECEKFKFERWNCSSRD 22
DB 25 KEWIRECQYQFRRHWCSTLD 46
RESULT 14
ID Q98SN7 PRELIMINARY; PRT; 385 AA.
AC Q98SN7;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Wg/int-1 related gene product WNT-2B.
GN Name=Wnt-2b;
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=21185935; PubMed=11290326; DOI=10.1016/S0092-8674(01)00285-9;
RA Kawakami Y., Capdevilla J., Buscher D., Itoh T., Eateban C.R.,
RA Belmonte J.C.;
RT "Wnt signals control FGF-dependent limb initiation and AER induction
in the chick embryo."
RL Cell 104:891-900(2001).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
transmembrane receptors (By similarity).
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
extracellular matrix (By similarity).
CC -!- SIMILARITY: Belongs to the Wnt family.
DR EMBL; AF346628; AAK38108.1; -
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0004871; F:signal transducer activity; IEA.
DR GO; GO:0007275; P:development; IEA.
DR GO; GO:0007223; P:frizzled-2 signaling pathway; IEA.
DR GO; GO:0006457; P:protein folding; IEA.
DR InterPro; IPR002130; CSA_PPIase.
DR InterPro; IPR005817; Wnt.
DR InterPro; IPR005816; Wnt_grthfactor.
DR Pfam; PF00110; wnt; 1.

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DR PRINTS; PRO1842; WNT2PROTEIN.
DR PRINTS; PRO1349; WNTPROTEIN.
DR SMART; SM00097; WNT1.1.
DR PROSITE; PS00246; WNT1.1.
KW Developmental protein; Wnt signaling pathway.
SQ SEQUENCE 385 AA; 42952 MW; FE3204C08A3E6EF5 CRC64;

Query Match          60.0%; Score 75; DB 2; Length 385;
Best Local Similarity 54.5%; Pred. No. 0.0062;
Matches 12; Conservative 5; Mismatches 5; Indels 0; Gaps 0;

QY 1 REAIRCECNKKFERWNCSSRD 22
:|||||:|:|:|:|:|
Db 95 KEWIRECQYQFRRHWCSTLD 116

RESULT 15
WN5C XENLA STANDARD; PRT; 360 AA.
ID WN5C XENLA
AC P33945; Q91928;
DT 01-FEB-1994 (Rel. 28, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Wnt-5c protein precursor (XWnt-5c).
GN Name=WNT-5C;
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP SEQUENCE FROM N.A.
RA Koster J.G., Kuiken G.A., Stegeman B., Peterson J., Eizema K.,
RA Stabel L., Dekker E.J., Destree O.H.J.;
RA Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
RN [2]
RP SEQUENCE OF 1-27 FROM N.A.
RC TISSUE=Embryo;
RX MEDLINE=94261437; PubMed=8202371;
RA Kuiken G.A., Bertens P.J.A., Peterson-Maduro J., Veenstra G.J.C.,
RA Koster J.G., Destree O.H.J.;
RT "The promoter of the Xwnt-5C gene contains octamer and AP-2 motifs
RT functional in Xenopus embryos.";
RL Nucleic Acids Res. 22:1675-1680(1994).
CC -!- FUNCTION: Ligand for members of the frizzled family of seven
CC transmembrane receptors. Probable developmental protein. May be a
CC signaling molecule which affects the development of discrete
CC regions of tissues. Is likely to signal over only few cell
CC diameters.
CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
CC extracellular matrix.
CC -!- DEVELOPMENTAL STAGE: Expression in the early gastrula stage
CC onwards.
CC -!- SIMILARITY: Belongs to the Wnt family.
CC
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CC
CC EMBL; X73510; CAA51916.1; -.
CC EMBL; X76190; CAA53784.1; -.
CC PIR; S34173; S34173.
CC InterPro; IPR005817; Wnt.
CC InterPro; IPR005816; Wnt_grthfactor.
CC Pfam; PF00110; wnt; 1.
CC PRINTS; PRO1349; WNTPROTEIN.
CC SMART; SM00097; WNT1.1.
CC PROSITE; PS00246; WNT1.1.
KW Developmental protein; Extracellular matrix; Glycoprotein; Signal;
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KW Wnt signaling pathway.
FT SIGNAL 1 16 Potential.
FT CHAIN 17 360 Wnt-5c protein.
FT CARBOHYD 94 94 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 100 100 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 292 292 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 306 306 N-linked (GlcNAc...) (Potential).
FT CONFLICT 15 15 S -> C (in Ref. 2).
SQ SEQUENCE 360 AA; 40714 MW; 93CBD15D7A92779E CRC64;

Query Match          59.2%; Score 74; DB 1; Length 360;
Best Local Similarity 50.0%; Pred. No. 0.0082;
Matches 11; Conservative 6; Mismatches 5; Indels 0; Gaps 0;

QY 1 REAIRCECNKKFERWNCSSRD 22
:|||||:|:|:|:|:|
Db 78 KTGICECQHQFRRHWCSTVD 99

Search completed: March 31, 2005, 02:57:03
Job time : 116.5 secs
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